




*Because
even
concrete
is not just
concrete*

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Tillman Construction Chemicals is the leading producer of admixtures for concrete and mortar. Tillman has branches in Belgium, Germany and Luxembourg serving customers all over the world. The headquarters are in Megchelen, the Netherlands, where the production facilities and the research organization are based. Very close contacts with customers represent an indispensable link between Tillman and the market. The need for new developments can be defined by staying in touch with customers' current concerns. As a result of this Tillman, as an independent admixtures manufacturer, is able to respond quickly and effectively to new customer needs and changes in the market. It is therefore not surprising that you find Tillman products in such a wide range of projects, for example the Amsterdam ArenA, the Eastern Schelde Flood Barrier and the Lyon metro.

The image is a vertical collage of three photographs. The top photograph shows a man in a white lab coat standing at the front of a seminar, pointing at a large screen displaying a bar chart. Several men in business suits are seated at a long table in the foreground, facing the presenter. The middle photograph is a close-up of a laboratory experiment, showing a glass beaker containing a yellow liquid with a metal stirrer inside. The bottom photograph shows four men in business suits sitting around a conference table in a room with large windows overlooking a green landscape. They are engaged in a discussion, with papers and a laptop on the table.

Top-flight technical research is important. There needs to be continual innovation in the present range and new products have to be launched on the market continuously. As a leading manufacturer of construction chemicals, Tillman is involved in research and development on a daily basis. A combination of internal and external training and education courses is the foundation on which this work is done. Tillman staff are kept abreast of the latest developments in the field of concrete and mortar admixtures on an ongoing basis. Existing and new customers and suppliers are also regularly invited to seminars in Tillman's conference facilities.





As far as Tillman is concerned, quality monitoring is just as important as innovation. There are intensive checks during the production process. Highly qualified staff continually evaluate the products to see whether they meet the stringent requirements. All common products and raw materials can be analyzed in modern laboratories. As a result of this Tillman has acquired experience over the years that enables it to guarantee that the concrete and mortar admixtures perform properly and have consistent compositions. Our construction chemicals were all developed in our own laboratories and are manufactured in our own factory. The concrete and chemical laboratories have been accredited as E-Prüfstelle in accordance with DIN 1045.

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1.1 CONCRETE ACCELERATORS

ACCELERATOR TM

Product description

Accelerator TM is an accelerator for concrete and mortar which increases the initial compressive strength. Accelerator TM considerably reduces the formwork removal time through the chemical reaction set off between the cement components and Accelerator TM. This chemical reaction accelerates hydration and at the same time raises the temperature in the mixture.

Application

Accelerator TM is perfectly suitable for non-reinforced concrete like concrete products or sewer pipes. Especially during the cold season there are many fields of application for Accelerator TM. When concreting at low temperatures, additional measures are to be taken:

- formwork and foundations have to be free of ice and snow
- formwork has to be insulated
- a high-quality cement, preferably CEM I 42.5-R or 52.5-R, should be used
- thorough mixing of the concrete for a sufficient period of time with the lowest water-cement ratio possible
- mixing water should be warm – the temperature of the concrete has to be at 5°C at least
- appropriate measures to protect the concrete from frost, e.g. by insulating foils

Dosage

- Min. dosage: 1.0% of the cement weight
- Max. dosage: 3.0% of the cement weight
- Method of adding and point of time: preferably added directly after the mix water

Technical data

- State of aggregation: liquid
- Colour: green
- Density (kg/l): 1.30
- pH-Value: 9.0
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): 25.0
- Colour code: green
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, containers, bulk.

Product description

Accelerator TM HBI 73/73 is a ready for use additive for concrete and mortar that speeds up the hardening of cement. The product gives thixotropic properties to the concrete or mortar, essentially improving green strength. Accelerator TM HBI 73/73 stimulates and accelerates the binding properties of the cement components which results in the improved hardening of the cement stone. Furthermore, it plasticises concrete or mortar which allows to reduce the amount of mix water used.

Application

Accelerator TM HBI 73/73 is used when concreting at low environmental temperatures, it can still be used as there is a light frost. The concrete will have a high initial compressive strength and an increased tightness. The product shows its excellent applicability e.g. in the production of concrete paving stones.

Dosage

- Min. dosage: 0.1% of the cement weight
- Max. dosage: 2.0% of the cement weight
- Method of adding and point of time: preferably added to the mix water or else together with the aggregates

Technical data

- State of aggregation: liquid
- Colour: transparent
- Density (kg/l): 1.30
- pH-Value: 9.0
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): 25.0
- Colour code: green
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, containers, bulk.

Accelerator TM 72/42 (1003)
 Accelerator TM 72/42 A (1004)
 Accelerator TM 72/42 B (1021)

Product description

Accelerator TM 72/42 is used to speed up the hardening process of hydraulic binders. Accelerator TM 72/42 has multiple effects. The plasticising properties of this admixture allow to obtain a constantly good workability while the amount of mix water can be reduced. Accelerator TM 72/42 causes a chemical reaction that speeds up the hardening process. This leads to a considerable reduction of the formwork removal time, although no reduction of the setting time is obtained.

Application

This product is highly adequate for non-reinforced concrete, for example concrete paving stones, artificial stones, sewer pipes, and so on.

Dosage

- Min. dosage: 0.2% of the cement weight
- Max. dosage: 2.0% of the cement weight
- Method of adding and point of time: preferably added directly after the mix water

Technical data

A	B
State of aggregation:	
liquid	liquid
Colour:	
colourless (grey)	colourless (grey)
Density (kg/l):	
1,35	1,36
pH-Value:	
10,0	8,5
max. alkali content (% Na ₂ O eq):	
n.a.	n.a.
max. chloride content (%):	
25,0	25,0
Colour code:	
red	red
Storage: dry, frost-protected, in closed packaging	
Shelf-life: when stored correctly at least 1 year, after date of production.	

Packaging

Cans, containers, bulk.

Remarks

72/42 A furthermore reduces the setting time and additionally enhances the thixotropic properties of the mix.

72/42 B doesn't reduce the setting time. It stabilises and improves the thixotropic properties. 72/42 B influences one clinker phase.

Product description

Accelerator TM 74/137 accelerates the hardening process of hydraulic binders. The product has several effects. It enhances the reactivity of the cement, which results in a higher initial compressive strength. As the water-cement ratio is so important for developing strength, Accelerator TM 74/137 is designed to give a constant workability when reducing the water-cement ratio. This improves the properties of the concrete. Accelerator TM 74/137 is free of chlorides.

Application

As Accelerator TM 74/137 is free of chlorides, it is approved for the production of reinforced concrete products.

Dosage

- Min. dosage: 1.0% of the cement weight
- Max. dosage: 2.0% of the cement weight
- Method of adding and point of time: preferably added directly after the mix water

Technical data

- State of aggregation: liquid
- Colour: transparent
- Density (kg/l): 1.07
- pH-Value: 7.0
- max. alkali content (%Na₂O-eq): n.a.
- max. chloride content (%): 0.1
- Colour code: green
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

Product description

Antifreeze TM is added to the mix water to protect fresh concrete and mortar which are thus freeze-safe up to -8°C, as their freezing point is lowered. The valid regulations concerning "Casting of concrete at low temperatures" are to be applied. The cement reacts with the water at temperatures of more than 5°C. There is no difference in the setting and hardening between concrete or mortar that contains Antifreeze TM and concrete or mortar without any admixtures added. The product holds plasticising properties which results in an improved concrete compaction.

Application

This product contains chlorides and therefore is only suitable for non-reinforced concrete.

Dosage

- Min. dosage: 0.5% of the cement weight
- Max. dosage: 0.5% of the cement weight up to -2°C; 1.0% of the cement weight up to -5°C; 1.5% of the cement weight up to -8°C
- Method of adding and point of time: preferably added directly after the mix water

Technical data

- State of aggregation: liquid
- Colour: brown
- Density (kg/l): 1.30
- pH-Value: 9.0
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): 25.0
- Colour code: green
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, containers, bulk.

ACCELERATOR TM D

Product description

Accelerator TM D is a product with several effects. On one hand, it speeds up the hardening. On the other hand, it delivers plasticising properties to the mix. Accelerator TM D moreover reduces the setting-time of fresh concrete and mortar.

Application

Accelerator TM D is used if the fresh concrete or mortar has to develop a certain degree of compressive strength after a short period of time or if short formwork removal times are necessary.

Dosage

- Min. dosage: 1.0% of the cement weight
- Max. dosage: 3.0% of the cement weight
- Method of adding and point of time: preferably added directly after the mix water

Technical data

- State of aggregation: liquid
- Colour: transparent grey
- Density (kg/l): 1.33
- pH-Value: 9.0
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): 25.0
- Colour code: green
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, containers, bulk.

Product description

Antifreeze TM protects freshly mixed concrete and mortar against frost up to -8°C. The product is added to the mix water thus lowering its freezing point. The cement reacts with the water at temperatures of at least +5°C. The plasticising agents in Antifreeze TM fluidise the concrete which results in an improved density of the mix. There is also an increase in early strength of the concrete or mortar.

Application

Antifreeze TM can be used with every kind of concrete or mortar available. Measures supporting fast development of initial strength have to be taken. The use of CEM I cements is highly recommended when working at low temperatures. If necessary, the water-cement ratio has to be reduced and higher consistency classes have to be used. The fresh concrete has to be protected against frost, e.g. by means of insulation.

Dosage

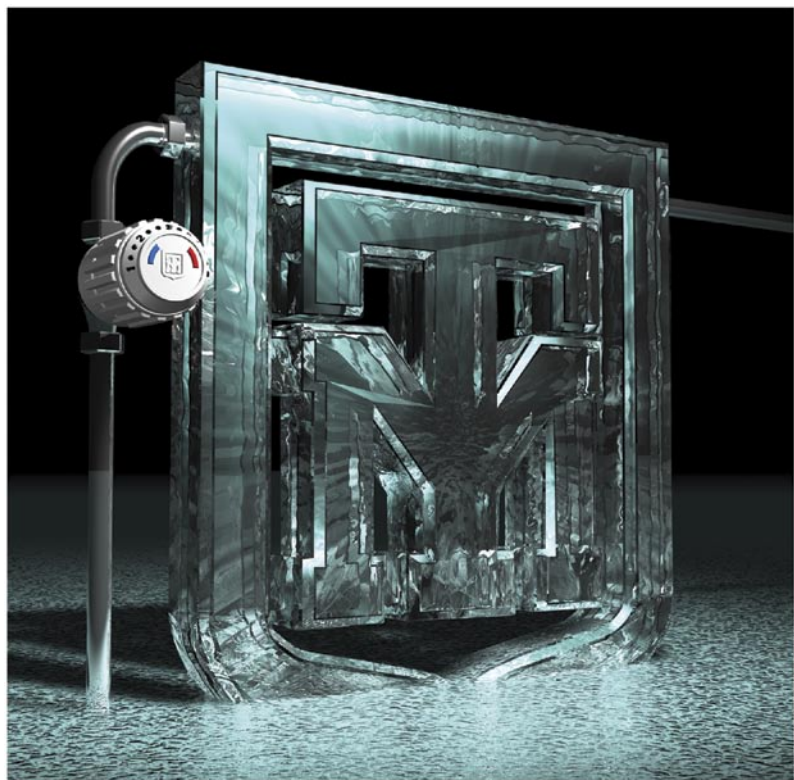
- Min. dosage: 0.5% of the cement weight bis -2°C
- Max. dosage: 1.5% of the cement weight bis -8°C
- Method of adding and point of time: preferably added directly after the mix water

Technical data

- State of aggregation: liquid
- Colour: brown
- Density (kg/l): 1.04
- pH-Value: 4.25
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): 0.1
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.



Product description

Setting Accelerator TM 87/10 mainly influences the setting-time of cement. Especially with CEM I-cements, a very short setting-time can be obtained. The product is alkaline and doesn't affect reinforcements. The Setting Accelerator TM 87/10 consists of silicate combinations that actively stimulate the C₃A-phase. Depending on the dosage, setting-time can be reduced to a few minutes. Adding Setting accelerator TM 87/10 also increases the chemical resistance.

Application

Setting accelerator TM 87/10 is added to mortar when repairing floors and walls. Water leakages caused by joints, gaps and cracks can be sealed, or gravel pockets can be filled up. Moreover, the Setting accelerator TM 87/10 can be used for installations such as the locking of screws, anchors, and so on.

Dosage

- Min. dosage: 1.0% of the cement weight
- Max. dosage: 7.0% of the cement weight
- Method of adding and point of time: preferably added directly after the mix water

Technical data

- State of aggregation: liquid
- Colour: colourless
- Density (kg/l): 1.25
- pH: 13.0
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): 0.1
- Colour code: green
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 3 months after date of production

Packaging

Cans, barrels, containers, bulk.

Remarks

The product may still be used after the recommended shelf-life has expired. Please be aware that the effect of the product in that case might be reduced. Setting accelerator TM 87/10 is highly alkaline. When using this product, protective gloves and goggles are to be worn. After skin contact immediately rinse with watered-down vinegar.

ACCELERATOR TM B CON. 44%**Product description**

Accelerator TM B is an admixture which speeds up the chemical reaction between cement and water. The initial compressive strength of concrete is increased. Accelerator TM B is mainly used with cements of the CEM I-type and is applied throughout the cold season. Through the chemical reaction with the cement, the product increases the binding temperature of the fresh concrete.

Application

Accelerator TM B is often used in non-reinforced concrete, as for example concrete products, concrete slabs, sewer pipes and foamed concrete. When casting concrete at low temperatures, additional measures have to be taken, as stipulated in the valid regulations. These measures for example include using warm mix water, reducing the water-cement ratio, covering the freshly-cast concrete with insulating materials.

Dosage

- Min. dosage: 1.0% of the cement weight
- Max. dosage: 3.0%.of the cement weight
- Method of adding and point of time: preferably added directly after the mix water

Technical data

- State of aggregation: liquid
- Colour: colourless
- Density (kg/l): 1.35
- pH-Value: 9.0
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): 25.0
- Colour code: green
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, containers, bulk.

Product description

Setting accelerator TM 86/14 has an impact on the setting time of concrete. Especially with CEM-I cement, very short setting times can be obtained. The product is alkaline and doesn't affect reinforcements. Setting accelerator TM 86/14 consists of silicate compositions which mainly stimulate the C_3A -phase of the cement. Depending on the dosage, the setting time can be reduced to several minutes.

Application

Setting accelerator TM 86/14 can be added to mortar when repairing floors and walls to seal water leakages caused by gaps, joints and cracks or filling up rock pockets. The needed amount of Setting accelerator TM 86/14 is mixed with water, the maximum is 1:10 parts (the minimum is 1 part of water). This mixture is then added to the mortar. After mixing, the mortar is spread in a layer of about 0.5 mm with a steel trowel. Setting accelerator TM 86/14 can also be used for installations, e.g. locking of anchors, screws, and so on. In a case where you need to repair a precast concrete unit in a very short period of time, the hardening process of a ready-for-use mortar can be accelerated by adding Setting accelerator TM 86/14. To do so, determine the adequate quantity of this product through preliminary tests.

Dosage

- Min. dosage: 1.0% of the cement weight
- Max. dosage: 7.0% of the cement weight
- Method of adding and point of time: prepare a dilution of Setting Accelerator TM 86/14 and water of 1:10 parts and add it to the mortar

Technical data

- State of aggregation: liquid
- Colour: colourless
- Density (kg/l): 1.24
- pH-Value: 14.0
- max. alkali content (% Na_2O -eq): n.a.
- max. chloride content (%): 0.1
- Colour code: green
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 3 months after date of production

Packaging

Cans, barrels, containers, bulk.

Remarks

The product may still be used after the recommended shelf-life has expired. Please be aware that the effect of the product in that case might be reduced. Setting accelerator TM 86/14 is highly alkaline. When using this product, protective gloves and goggles are to be worn. After skin contact immediately rinse with watered-down vinegar.

ACCELERATOR TM BLD

Product description

Accelerator TM BLD can be used for non-reinforced concrete, as this product contains chlorides. Accelerator TM BLD speeds up the setting and hardening process and allows to reduce the period of time until the formwork can be removed.

Application

Accelerator TM BLD is highly applicable to be used in concrete and mortar when producing garden sculptures. Using Accelerator TM BLD in this production process can remarkably reduce the period of time until the moulds can be removed. In the cold season, Accelerator TM BLD can be used until temperatures of 5°C are reached. Especially at the beginning of the hardening process, the concrete or mortar exhibits better frost-resistance because of the acceleration of the cement hydration. Carefully cover the concrete products to avoid frost-inflicted damage. Furthermore, this accelerator can be added to all kinds of non-reinforced concrete as well as to ready-mixed concrete.

Dosage

- Min. dosage: 1.0% of the cement weight
- Max. dosage: 4.0% of the cement weight
- Method of adding and point of time: preferably added to the mix water, or to the ready mix

Technical data

- State of aggregation: liquid
- Colour: brown
- Density (kg/l): 1.33
- pH-Value: 9.0
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): 25.0
- Colour code: green
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, containers, bulk.



Accelerator TM A for shotcrete (1017)
Accelerator TM E for shotcrete (1018)

Product description

Accelerator TM for shotcrete enhances the adhesion of shotcrete on natural stone walls or concrete walls and facilitates overarm work. The rebound is diminished. Layers of up to 30 mm can be superimposed in one single work stage, if using an appropriate mixture. The accelerator delivers several valuable properties to the concrete. Cement particles are wetted more thoroughly, the cement hydration is stimulated, the hydration is caused to generate heat and finally, an overall increase of compressive strength during the first 24 hours is obtained. Compared to each other, type A delivers a remarkably higher final compressive strength, whereas type E enhances the resistance against sulphates. TM for shotcrete is chloride-free. The thickness of the layers that can be applied in one work stage depends on the whole mixture (cement-type, cement-content) as well as on the circumstances at the site (shotcrete-system, kind and condition of surfaces).

Application

Accelerator TM for shotcrete can be used for tunnelling, mining, securing building pits, and redevelopment projects.

Remarks

After expiry of the shelf-life stated, the product may still be used. However, the properties of the product might prove reduced.

Dosage

A	E
Min. dosage:	
1.0%	1.0%
Max. dosage:	
8.0%	12.0%
Method of adding and point of time:	
preferably ad while processing	

Technical data

A	E
State of aggregation:	
liquid	liquid
Colour:	
transparent	colourless
Density (kg/l):	
1.12	1.34
pH-Value:	
13.0	12.0
max. alkali content (% Na ₂ O eq):	
n.a.	n.a.
max. chloride content (%):	
0.1	0.1
Colour code:	
green	green
Storage: dry, frost-protected, in closed packaging	
Shelf-life: when stored correctly at least 3 months after date of production.	

Packaging

Cans, barrels, containers, bulk.

Product description

Accelerator for shotcrete TM S is an alkali-free high-performance accelerator. The dosage depends on the required setting and hardening times. The product is perfectly suitable for the wet mix shotcrete system. Due to fast setting times, there are advantages in the use (application of thicker layers possible) dust and rebound are reduced. Accelerator for shotcrete TM S is not aggressive, ecological and easy to process. The product can be used in combination with Stabiliser TM Stabex 100 to optimize the concrete quality.

Application

Accelerator for shotcrete TM S can be used in for example tunneling, mining, for securing building pits and for redevelopment projects. The use of this product implies several advantages:

- fast setting times
- application of thicker layers
- high initial and final strengths
- application on humid surfaces possible
- suitable for consolidation of rocks
- high concrete consistency (for example slump >48 cm)

Dosage

- Min. dosage: 3.0 % of the cement weight
- Max. dosage: 10.0% of the cement weight
- Method of adding and point of time: added directly at the jet while the shotcrete is processed

Technical data

- State of aggregation: liquid
- Colour: beige
- Density (kg/l): 1.47
- pH-Value: 2.7
- max. alkali content (% Na₂O-eq): <1.0 %
- max. chloride content (%): 0.1
- Colour code: green
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 3 months after date of production

Packaging

Cans, barrels, containers, bulk.

Remarks

Store the product in its original packaging at >+5°C. Please agitate before using.

Product description

Accelerator TM 96/100 is a ready-to-use admixture for concrete and mortar which enhances the hardening process of the cement. This property allows to significantly reduce the period of time until the formwork can be removed. Accelerator TM 96/100 increases the early strength of the concrete as well. Furthermore, the product doesn't influence the final strength in a negative way when used with the same water-cement ratio. Accelerator TM 96/100 is free of chlorides.

Application

Accelerator TM 96/100 can be used in all kinds of concrete, mortar and floor pavement, whether they are reinforced or not. When concreting at low temperatures, the valid technical regulations have to be followed:

- formwork and foundations have to be free of ice and snow
- formwork has to be insulated
- a high-quality cement, preferably CEM I 42.5 or CEM-I 52.5, should be used
- thorough mixing of the concrete for a sufficient period of time with the lowest water- cement ratio possible
- mix water, and perhaps aggregates should be warm – the temperature of the concrete has to be at 5°C at least
- appropriate measures to protect the concrete from frost, e.g. by insulating foils; if necessary, keep doors shut

Dosage

- Min. dosage: 1.0% of the cement weight
- Max. dosage: 2.0% of the cement weight
- Method of adding and point of time: preferably added directly after the mix water

Technical data

- State of aggregation: liquid
- Colour: colourless
- Density (kg/l): 1.25
- pH-Value: 14.0
- max. alkali content (% Na₂O-eq): 15.0
- max. chloride content (%): 0.1
- Colour code: green
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 3 months after date of production

Packaging

Cans, barrels, containers, bulk.

Remarks

After expiry of the shelf-life stated, the product may still be used. However, the properties of the product might prove reduced.

POLY SMART SYSTEM PSS B

Product description

Poly Smart System PSS B strongly influences the setting behaviour of cement. The product is alkaline and does in no way affect reinforcements. Poly Smart System PSS B consists of silicate compositions which primarily react with the C_3A -phase in the cement. Depending on the dosage, setting time can be reduced to several minutes. Adding this product to the mix additionally increases the chemical resistance.

Application

Poly Smart System PSS B is used as an accelerator for mortar and concrete.

Dosage

- Min. dosage: 1.0% of the cement weight
- Max. dosage: 7.0% of the cement weight
- Method of adding and point of time: preferably added to the ready mix

Technical data

- State of aggregation: liquid
- Colour: colourless
- Density (kg/l): 1.24
- pH-Value: 14.0
- max. alkali content (% Na_2O -eq): n.a.
- max. chloride content (%): 0.1
- Colour code: green
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 3 months after date of production

Packaging

Cans, barrels, containers, bulk.

Remarks

After expiry of the shelf-life stated, the product may still be used. However, the properties of the product might prove reduced. Poly Smart System PSS B is highly alkaline, so protective gloves and goggles are to be worn when using this product. After skin contact immediately rinse with watered-down vinegar. This product was especially designed to shorten formwork-removal times or reduce the content of binding agents, or both. A combined use with Poly Smart System PSS A is possible.

1.2 MORTAR ACCELERATORS

Product description

Mortar accelerator TM 72/42 HO accelerates the hardening process of hydraulic binding agents and is widely used in different kinds of mortar, as for example plaster mortar or masonry mortar. Mortar accelerator TM 72/42 HO has multiple effects as it holds plasticising properties as well as accelerating properties. These plasticising properties allow to obtain a constant workability while reducing the amount of mix water. Whereas the mortar accelerator causes a speeding-up of the hardening process.

Application

Mortar accelerator TM 72/42 HO is used in:

- masonry mortar
- plaster mortar
- cement facing and so on

Dosage

- Min. dosage: 0.2% of the cement weight
- Max. dosage: 2.0% of the cement weight
- Method of adding and point of time: preferably added directly after the mix water

Technical data

- State of aggregation: liquid
- Colour: colourless
- Density (kg/l): 1.30
- pH-Value: 9.0
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): 25.0
- Colour code: green
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, containers, bulk.

Product description

Estrifix TM is an admixture for cement-based screed mortar which holds plasticising properties. Estrifix TM accelerates the hardening process, causing the mortar to set earlier. Thus, the floor will sooner be accessible and tasks like installing floor covers, as carpets or parquet floors, can be executed earlier. At the same time stabilising agents contained in the product diminish the tendency to segregate and/or bleed.

Application

Estrifix TM is used for cement-based screed mortar, especially if thin layers of screed mortar have to be spread on vast areas.

Dosage

- Min. dosage: 1.0% of the cement weight
- Max. dosage: 2.0% of the cement weight
- Method of adding and point of time: preferably added directly after the mix water

Technical data

- State of aggregation: liquid
- Colour: green
- Density (kg/l): 1.28
- pH-Value: 8.0
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: green
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, containers, bulk.

2.1 CONCRETE RETARDERS

Concrete retarder TM K con. 18% (1101)
Concrete retarder TM K con. 9% (1109)
Concrete retarder TM K powder (1103)

Product description

Concrete retarder TM K delays the hydration process of the cement. For this reason, the heat generation process of the hydration is extended over a longer period of time. Which, moreover, avoids extreme temperatures of hydration heat. By using this product, a predefined time of delay can be obtained. For a certain period of time, the product prevents the reactive components of the mix from dissolving, so that the start of the hydration process is delayed. Dosage is to be varied depending on the kind of cement used, the biggest differences occur when comparing the use of CEM I-cement to that of CEM III-cement. To obtain the desired delay effect, cements generating great hydration heat have to be added more retarder than those not generating much hydration heat. Further is the retarding effect influenced by the temperature of the concrete, environmental temperatures and the water-cement ratio. The initial compressive strength of a retarder-altered concrete will be lower than that of a concrete without retarding components. Its 28-days strength however, will be higher than that of a non-retarded concrete. The use of Concrete retarder TM K:

- delays the beginning of the setting
- increases final strength
- provides for constant air content



Preliminary tests for the product's suitability are indispensable

**Article number 1101 1103
1109**

Application

Concrete retarder TM K is used whenever concrete is needed to retain its workability longer than usual. This product is perfectly suitable for the manufacturing of massive concrete elements. During the process of casting, the content of the retarder is gradually reduced towards "0" to have all the concrete start setting at the same time.

Concrete retarder TM K is used with high-quality concrete whenever:

- a projected prolongation of workability is desired
- vast amounts of concrete are to set at the same time

Remarks

When using Concrete retarder TM K, the appropriate curing of the concrete is most important, therefore the application of Curing Compound TM is highly recommended. A higher-than-usual pressure on the formwork is to be expected.

Dosage

- Min. dosage: 0.2% of the cement weight
- max Dosage: 1.5% of the cement weight
- Method of adding and point of time: preferably added directly after the mix water

Technical data

9%	18%	powder
State of aggregation:		
liquid	liquid	powder
Colour:		
colourless	colourless	grey
Density (kg/l):		
1,07	1,14	n.a.
pH-Value:		
10,0	10,0	n.a.
max. alkali content (% Na ₂ O eq):		
4.0	8.5	n.a.
max. chloride content (%):		
0.1	0.1	0.1
Colour code:		
red	red	red
Storage: dry, frost-protected, in closed packaging		
Shelf-life: when stored correctly at least 1 year, after date of production.		

Packaging

Liquid: Cans, barrels, containers, bulk.

Powder: Sacks, pallets, big bags.

		DELAY-TIME (HOURS)							
		3	5	7	9	12	15	20	24
Cement type	Environmental temperature (°C)	Dosage (% of cement weight)							
CEM III/A 32.5	+ 5	--	0.1	0.2	0.3	0.4	0.6	0.8	1.0
	+ 10	0.1	0.2	0.3	0.4	0.5	0.7	0.9	1.1
	+ 15	0.2	0.2	0.3	0.5	0.6	0.8	1.0	1.2
	+ 20	0.2	0.3	0.4	0.5	0.7	0.9	1.1	1.3
	+ 25	0.3	0.4	0.5	0.6	0.8	1.0	1.2	1.4
	+ 30	0.4	0.5	0.6	0.7	0.9	1.1	1.3	1.5
CEM III/A 42.5 CEM I/32.5 R	+ 5	0.1	0.2	0.3	0.4	0.5	0.6	0.8	1.0
	+ 10	0.2	0.2	0.3	0.4	0.6	0.7	0.9	1.1
	+ 15	0.2	0.3	0.4	0.5	0.7	0.9	1.1	1.3
	+ 20	0.3	0.4	0.5	0.6	0.8	1.0	1.2	1.4
	+ 25	0.4	0.5	0.6	0.7	0.9	1.1	1.3	1.5
	+ 30	0.5	0.6	0.7	0.8	1.0	1.2	1.4	1.6
CEM I/42.5 R	+ 5	0.2	0.3	0.4	0.5	0.6	0.8	1.0	1.2
	+ 10	0.2	0.3	0.4	0.5	0.7	0.9	1.1	1.3
	+ 15	0.3	0.4	0.5	0.6	0.8	1.0	1.2	1.4
	+ 20	0.4	0.5	0.6	0.7	0.9	1.1	1.3	1.5
	+ 25	0.5	0.6	0.7	0.8	1.0	1.2	1.4	1.6

This chart contains standard values.

Tests were conducted with a water-cement ratio of 0.6.

Cement type, grinding fineness and water-cement ratio influence delay-time.

2.2 MORTAR RETARDERS

Mortar retarder TM FT con. 30% (2002)
Mortar retarder TM FT powder (2014)

Product description

Mortar retarder TM FT delays the setting of cement in the masonry mortar. Delay-time for different cement types can be adjusted through the appropriate dosage. For example, the dosage for CEM-III cement is lower than for CEM-I cement. The period of the delay depends on the temperature of the mortar mix and on environmental temperatures. Relative to the dosage, Mortar retarder TM FT delays the setting of the mortar and increases its consistency.

Application

Mortar retarder TM FT is added if the mortar is to retain its workability over a long period of time, e.g. in the case of ready-mixed mortar. The individual dosage of Mortar retarder TM FT allows the production of mortar that has to be used immediately, as well as mortar that can still be used the following day. Delay-times also depend on the cement type used.

Remarks

Dosage applies for liquid as well as powder. Mortar retarder TM FT can be used with Mortar stabiliser TM FTB (Art. No. 2001).

Dosage

- Min. dosage: 0.2% of the cement weight
- Max. dosage: 1.0% of the cement weight
- Method of adding and point of time: preferably added to the mix water or directly after the mix water

Technical data

30%	Powder
State of aggregation:	
liquid	powder
Colour:	
colourless	grey
Density (kg/l):	
1.14	n.a.
pH-Value:	
7.5	n.a.
max. alkali content (% Na ₂ O eq):	
n.a.	n.a.
max. chloride content (%):	
0.1	0.1
Colour code:	
red	red
Storage: dry, frost-protected, in closed packaging	
Shelf-life: when stored correctly at least 1 year, after date of production.	

Packaging

Liquid: Cans, barrels, containers, bulk.

Powder: Sacks, pallets, big bags.

MORTAR ADMIXTURE TM 79/7

Product description

Mortar admixture TM 97/7 is an admixture for factory mortar containing retarder, plasticiser and air-entraining agents. Mortar admixture TM 97/7 can delay the setting of mortar up to 48 hours. The micro-air pores added by this product increase the ductility and stability of fresh mortar. Using Mortar admixture TM 97/7 offers several advantages. As the mortar doesn't have to be produced on-site, there's no standby time before the start of the work and the mortar will under all circumstances be of a constant quality.

Application

Mortar admixture TM 97/7 is used if the mortar is to retain its workability over a long period of time. It is especially convenient for the production of factory mortar in mortar and ready-mixed concrete plants, as well as for mortar used on highly absorbing surfaces.

Packaging

Cans, barrels, containers, bulk.

Dosage

- Min. dosage: see standard values in the chart
- Max. dosage: see standard values in the chart
- Method of adding and point of time: preferably added to the mix water, or to the ready mix

Technical data

- State of aggregation: liquid
- Colour: colourless
- Density (kg/l): 1.09
- pH-Value: 7.0
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Remarks

The sand (0-2 mm) has to comprise a sufficient amount of superfines. Standard values for a delay time of 36 hours:

Temperature	Dosage (% of cement weight)
+ 5 – 7°C	0.6%
+ 7 – 12°C	0.7%
+ 12 – 17°C	0.8%
+ 17 – 22°C	1.0%
+ 22 – 27°C	1.1%
+ 27 – 32°C	1.2%

MORTAR RETARDER TM W

Product description

Mortar retarder TM W delays the setting of cement in mortar and PM-binders over an extremely long period of time, as it prevents certain cement components from dissolving. Thus, the beginning of the hydration is retarded. The possible delays also depend on temperature and consistency of the cement type and strength class used.

Application

Mortar retarder TM W is used if cement-bound mortar have to retain a constant workability over a long period of time. It is possible, depending on dosage and temperatures, to obtain a retardation of several days.

Dosage

- Min. dosage: 0.2% of the cement weight
- Max. dosage: 1.5% of the cement weight
- Method of adding and point of time: preferably ad to the mix water or with the last partial amount of the mix water

Technical data

- State of aggregation: liquid
- Colour: brown
- Density (kg/l): 1.17
- pH: 6.5
- Max. alkali content (% Na₂O-eq): n.a..
- Max. chloride content (%): 0.1
- Colour code: red
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

MORTAR ADMIXTURE 79/8

Product description

Mortar Admixture TM 79/8 is an admixture for factory mortar and contains retarding, plasticizing and stabilising components. The combined properties of Mortar Admixture TM 79/8 enable easy dosing and precise adjustment of the required properties of the mortar. In particular, this product stands out due to a uniform content of air pores and its processing time. Depending on ambient and mortar temperatures, a processing time of at least 40 hours is possible.

Application

Mortar Admixture TM 79/8 can be used whenever mortar is required to remain workable for a long period of time. The product is especially suitable for the production of factory mortar in mortar and ready-mixed concrete plants, and for bricking up highly absorbing stones. Dosage is 0.6% - 1.2% of the cement weight depending on the temperature.

Dosage

- Min. dosage: 0.6% of the cement weight
- Max. dosage: 1.2% of the cement weight
- Method of adding and point of time: preferably add to the mix water or with the last partial amount of the mix water

Technical data

- State of aggregation: liquid
- Colour: colourless
- Density (kg/l): 1.07
- pH: 7
- Max. alkali content (% Na₂O-eq): n.a..
- Max. chloride content (%): 0.1
- Colour code: red
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

Remarks

The sand used has to comprise a sufficient amount of superfines.

2.3 PLASTER RETARDERS

PLASTER RETARDER TM

Plaster retarder TM 88/15 (1107)
Plaster retarder TM 88/15 VL (1108)

Product description

Plaster retarder TM 88/15 retards the setting of plaster.

Application

Plaster retarder TM 88/15 is used if the setting of plaster is to be retarded or if early hardening is to be prevented. The workability of plaster can be prolonged by adding Plaster retarder TM 88/15, the period of the prolongation depending on the dosage.

Remarks

The better the quality of the plaster used, the more effective the Plaster retarder TM 88/15 proves to be. Dosage for Plaster retarder TM 88/15 and Plaster retarder TM 88/15 VL is the same.

Dosage

- Min. dosage: 0.1% of the cement weight
- Max. dosage: 0.2% of the cement weight
- Method of adding and point of time: preferably add to the mix water

Technical data

88/15	88/15 VL
State of aggregation:	
powder	liquid
Colour:	
grey	colourless
Density (kg/l):	
n.a.	1.14
pH-Value:	
n.a.	4.0
max. alkali content (% Na ₂ O eq):	
n.a.	n.a.
max. chloride content (%):	
n.a.	n.a.
Colour code:	
red	red
Storage: dry, frost-protected, in closed packaging	
Shelf-life: when stored correctly at least 1 year, after date of production.	

Packaging

Liquid: Cans, barrels, containers, bulk.

Powder: Sacks, pallets, big bags.

2.4 SURFACE RETARDERS

SURFACE RETARDER TM 72/34

Product description

Surface retarder TM 72/34 slows down the hydration process of the cement. It is applied directly on the formwork. The effects of the product still work after drying. After the removal of the formwork the treated surface of the concrete is washed. Non-hardened cement paste is rinsed off the near-surface area, so that a coarse, rough-textured surface structure is obtained. This surface structure provides a good adhesive grip for concrete that might be applied later. The depth of penetration depends on the cement type used, the temperature of the concrete, the quantity of Surface retarder TM 72/34 applied and the degree of its dilution.

Application

For concrete that has to be washed, vertical concrete surfaces, wall elements, fair faced concrete and so on.

User instructions

Surface retarder TM 72/34 is applied via big brush or roll. If diluted, it can also be sprayed. The product can be diluted in a ratio of 1:5.

Consumption

1 kg is sufficient for approximately 3-5 m², depending on the ratio of dilution and the depth of washing requested.

Technical data

- State of aggregation: viscous
- Colour: yellow
- Density (kg/l): 1.06
- pH-Value: 7.0
- max. alkali content (% Na₂O eq): n.a.
- max. chloride content (%): 0.1
- Colour code: red
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

SURFACE RETARDER TM M174

Product description

Surface retarder TM M 174 thoroughly slows down the hydration of the cement. For the production of exposed aggregate concrete (slabs or the like), appropriate casing (paper, cardboard, foamed material) treated with a sufficient quantity of Surface retarder TM M 174 is put into the mould or formwork before casting the concrete. After formwork and casings are removed, the concrete can be washed. The ideal point of time for the washing depends on the cement type used and the temperature of the concrete. Fresh-concrete surfaces can be treated with the product directly after installation.

Application

Surface retarder TM M 174 is used for the production of exposed aggregate concrete elements and the generation of coarse surface structures. It can also be applied to avoid casting seams.

User instructions

To obtain a rough concrete surface, apply Surface retarder TM M 174 directly after production using a spraying device, roll or soft brush. The ideal point of time for the washing depends on the cement type used and the temperature of the concrete. The product can be watered down in a ratio of 1:5.

Consumption

1 kg is sufficient for 5-8 m².

Technical data

- State of aggregation: liquid
- Colour: brown
- Density (kg/l): 1.12
- pH-Value: 5.0
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): 0.1
- Colour code: red
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

SURFACE RETARDER TM

Product description

Surface retarder TM offers a wide variety of possible applications for concrete for which a delay of the setting on the surface is requested. Surface retarder TM can be used to produce coarse surfaces, e.g. concrete floors, fair faced concrete and exposed aggregate concrete. The efficient use of the product is independent of weather conditions.

Application

Used with concrete if a delay of the setting in near-surface areas is desired or to avoid casting seams.

User instructions

Evenly spray on surface directly after production and processing. Let the product act upon the surface for a sufficient period of time, then rinse with a pressure washer.

Dosage

N.a.

Technical data

- State of aggregation: liquid
- Colour: colourless
- Density (kg/l): 1.10
- pH-Value: 8.0
- max. alkali content (% Na_2O -eq): n.a.
- max. chloride content (%): 0.1
- Colour code: red
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

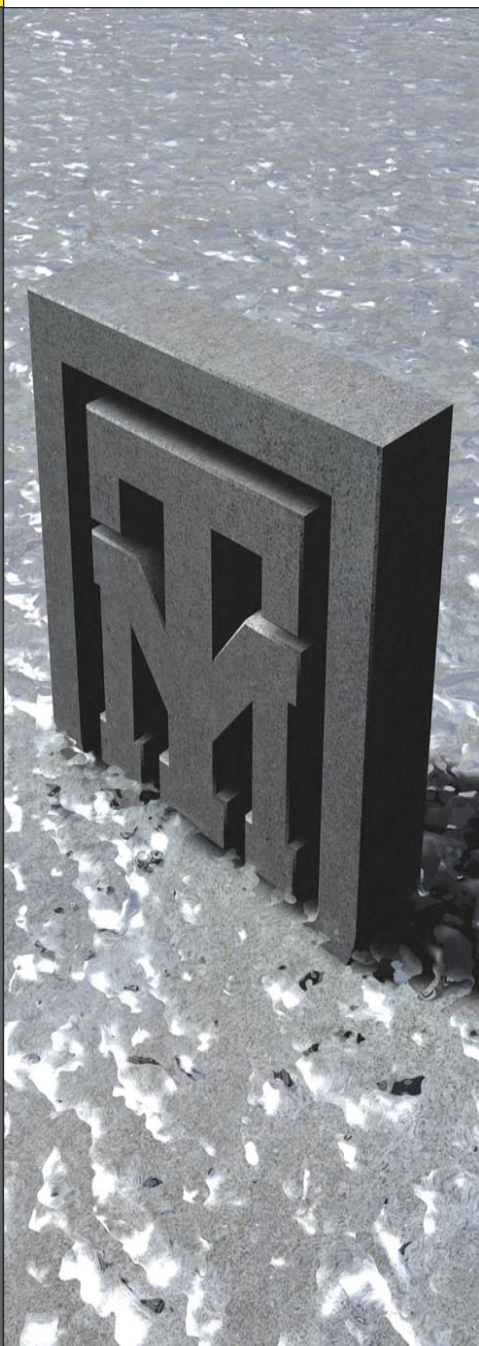
3.1 PLASTICISERS

PLASTICISER TM

Plasticiser TM con. 33% (BV) (1201)
Plasticiser TM con. 100% (BV) Powder (1217)

Product description

Plasticiser TM reduces the surface tension of the mix water and thus stimulates faster wetting of the aggregates, especially of the cement. Any possible water reduction depends on the dosage of the admixture, the cement type used and the grading of the gravel. Using Plasticiser TM allows to reduce the water-cement ratio, which enhances the concrete properties. This product distributes a dispersing effect which diminishes the cement particles' tendency to coagulate. This results in enhanced flow properties of the cement paste and thus increases the workability of fresh concrete. Plasticiser TM reduces cement sedimentation while at the same time the homogeneity of fresh concrete is increased. This leads to a more compact structure of the concrete featuring enhanced water impermeability and increased resistance against frost and aggressive environmental impacts. Casting and compaction of Plasticiser TM-added concrete are made easier.



Preliminary tests for the product's suitability are indispensable

Article number 1201 1217

Application

The following technological aspects can explain the excellent suitability of Plasticiser TM for so many different fields of applications:

- at a constant water-cement ratio, consistency is increased, thus better workability and compaction are obtained
- compressive strength is increased by reducing the water-cement ratio, consistency remains constant
- the journey time for transport concrete can be bridged

Plasticiser TM is used to manufacture:

- high-quality concrete of all kinds
- fair faced concrete
- heavily reinforced construction elements
- inherently stable, sharp-edged artificial stones with a compact structure

Remarks

Accidental overdosing might slow down the hardening process. There won't be any negative consequences as long as the concrete is thoroughly cured to avoid premature drying.

Dosage

- Min. dosage (con. 33%): 0.1% of the cement weight
- Max. dosage (con. 33%): 1.0% of the cement weight
- Method of adding and point of time: preferably added directly after the mix water

Technical data

33%	100%
State of aggregation:	
liquid	powder
Colour:	
brown	brown
Density (kg/l):	
1.14	n.a.
pH-Value:	
4.5	n.a.
max. alkali content (% Na ₂ O eq):	
0.5	2.0
max. chloride content (%):	
0.1	0.1
Colour code:	
yellow	yellow
Storage: dry, frost-protected, in closed packaging	
Shelf-life: when stored correctly at least 1 year, after date of production.	

Packaging

Liquid: Cans, barrels, containers, bulk.

Powder: Sacks, pallets, big bags.

PLASTICISER TM 70/153-A

Product description

Plasticiser TM 70/135-A gives the concrete plasticising and accelerating properties. The product contains surface active substances that allow to reduce the water content while the workability remains constant. Plasticising and accelerating properties depend on:

- cement type and content
- water-cement ratio
- temperature of the fresh concrete

Application

Plasticiser TM 70/135-A is mainly used for the production of concrete stones, to allow a removal of the form-work after a very short period of time. When used for concrete, it increases green strength.

Dosage

- Min. dosage: 0.1% of the cement weight
- Max. dosage: 0.4% of the cement weight
- Method of adding and point of time: preferably added directly after the mix water

Technical data

- State of aggregation: liquid
- Colour: brown
- Density (kg/l): 1.08
- pH-Value: 9.0
- max. alkali content (% Na_2O -eq): n.a.
- max. chloride content (%): 0.1
- Colour code: yellow
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.



Product description

Plasticiser TM F is a concrete admixture for many possible fields of application. Its use changes the rheologic properties of concrete. Plasticiser TM F stimulates and intensifies the wetting of the aggregates, especially of the cement, by reducing the surface tension of the mix water. Plasticiser TM F is added to the mix to give thixotropic properties to the concrete. Adhesion and cohesion strength of the finer particles are increased which enhances the coherence. Any possible reduction of the quantity of mix water is depending on the dosage of the admixture, the cement type and the graining of the aggregate. A reduction of the water content means a reduction of the water-cement ratio and results in enhanced concrete properties. By decreasing sedimentation of the finer particles, Plasticiser TM F delivers excellent homogeneity and compactness to fresh concrete. This will then result in a tight concrete structure with increased water tightness and better frost-resistance. Casting and compacting of Plasticiser TM F-added concrete is made easier and there will be no deformations of fresh concrete due to the immediate removal of the formwork.

Application

Because of its thixotropic properties, Plasticiser TM F is used for the following applications:

- casting of slopes
- production of artificial and paving stones
- when producing concrete products: increase of green strength
- when producing lightweight concrete: promotion of compactness and prevention of bleeding

Dosage

- Min. dosage: 0.1% of the cement weight
- Max. dosage: 0.5% of the cement weight
- Method of adding and point of time: preferably added directly after the mix water

Technical data

- State of aggregation: liquid
- Colour: brown
- Density (kg/l): 1.08
- pH-Value: 4.0
- max. alkali content (% Na₂O-eq): 1.0
- max. chloride content (%): 0.1
- Colour code: yellow
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

Remarks

Accidental overdosing might slow down the hardening process. There won't be negative consequences as long as the concrete is thoroughly cured to avoid premature dehydration.

Plasticiser TM BV-VZ con. 35% (BV) (1205)
 Plasticiser TM BV-VZ con. 100% Powder (1218)
 Plasticiser TM BV-VZ con. 45% (1221)

Product description

Plasticiser TM BV-VZ consists of a plasticiser and a retarder. Plasticiser TM BV-VZ contains surface-active substances that cause the excellent plasticising effects which allow to reduce the water-cement ratio while maintaining a constant workability. Depending on the dosage, the setting time can be prolonged up to 15 hours. Delay periods further depend on cement type, water-cement ratio and temperature of the fresh concrete.

Application

Plasticiser TM BV-VZ is used to produce high-quality concrete, or for the casting of drilled piles. The use of Plasticiser TM BV-VZ is especially adequate if the concrete has to be pumped, e.g. there will be no loss if concrete remains in the hoses while the concrete pumps are being replaced.

Remarks

If the delay time is very long, higher-than-usual pressure on the formwork has to be expected.

Dosage

- Dosage (con. 35%): 0.4%-0.8% of the cement weight
- Dosage (con. 45%): 0.3%-0.6% of the cement weight
- Method of adding and point of time: preferably added to the mix water or else together with the aggregates

Technical data

35%	45%	100%
State of aggregation:		
liquid	liquid	powder
Colour:		
brown	brown	brown
Density (kg/l):		
1.15	1.23	n.a.
pH-Value:		
4.0	6.0	n.a.
max. alkali content (% Na ₂ O eq):		
8.5	8.5	n.a.
max. chloride content (%):		
0.1	0.1	0.1
Colour code:		
yellow	yellow	yellow
Storage: dry, frost-protected, in closed packaging		
Shelf-life: when stored correctly at least 1 year, after date of production.		

Packaging

Liquid: Cans, barrels, containers, bulk.

Powder: Sacks, pallets, big bags.

Product description

Plasticiser TM 85/11 is made of high-quality basic materials and was especially designed for the application with plaster mortar. This product essentially alters the rheologic properties of plaster mortar when added to the mix. The reduction of the water content, like in cement-bound mortars, results in greater strength, while retaining constant workability.

Application

Plasticiser TM 85/11 is used in the production of plaster products, for building materials as well as for decorations or ornaments.

Dosage

- Min. dosage: 0.2% of the plaster weight
- Max. dosage: 0.5% of the plaster weight
- Method of adding and point of time: preferably added directly after the mix water

Technical data

- State of aggregation: liquid
- Colour: brown
- Density (kg/l): 1.19
- pH-Value: 6.0
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: yellow
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

Product description

Plasticiser TM 400 consists of high-quality basic materials and when added to a mix it alters the rheologic properties of concrete and mortar. Primarily, the finer particles of a mix are influenced. Plasticiser TM 400 prevents coagulation of the cement, segregation and bleeding. Plasticiser TM 400 causes a slight delay of setting times, depending on cement type and temperature.

Application

Plasticiser TM 400 is used for the production of concrete with a low water content. The plasticising properties of this product provide for especially compact concrete even if the water-cement ratio is low. Thus, this product is particularly suitable for the production of concrete elements.

Dosage

- Min. dosage: 0.1% of the cement weight
- Max. dosage: 0.4% of the cement weight
- Method of adding and point of time: preferably added directly after the mix water

Technical data

- State of aggregation: liquid
- Colour: brown
- Density (kg/l): 1.23
- pH-Value: 4.5
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: yellow
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

STONE ADMIXTURE TM

Product description

Stone admixture TM enhances the properties of earth-moist concrete and is applied in the production of concrete paving stones. Stone admixture TM reduces the surface tension of the mix water and thus enables faster and more intense wetting of the aggregate and the cement particles. The earth-moist concrete gains a high green strength, enabling the concrete products to remain inherently stable immediately after compaction. Moreover, this product enables you to obtain concrete products with a smooth surface.

Application

Stone admixture TM is applied if earth-moist concrete or concrete mortar is processed, if high green strength is relevant or if smooth surfaces are requested.

Dosage

- Min. dosage: 0.02% of the cement weight
- Max. dosage: 0.6% of the cement weight
- Method of adding and point of time: preferably added directly after the mix water

Technical data

- State of aggregation: liquid
- Colour: brown
- Density (kg/l): 1.01
- pH-Value: 6.0
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): 0.1
- Colour code: yellow
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.



Product description

Plasticiser TM XR-100 is a plasticiser consisting of modified, natural, and synthetic basic materials and offers many different fields of application for concrete. Plasticiser TM XR-100 reduces the surface tension of the mix water, which enables a faster and better wetting of the aggregate and especially of the cement particles. Depending on the dosage, the cement type and the grading of the aggregate, a remarkable reduction of the water content can be obtained. This reduction of the water content brings about a reduction of the water-cement ratio which means that the properties of the concrete are enhanced. Plasticiser TM XR-100 delivers dispersing properties to the concrete, preventing the coagulation of the cement particles. This leads to a significantly enhanced flowability of the cement paste which finally results in increased consistence and workability of the fresh concrete. Plasticiser TM XR-100 counteracts sedimentation of finer particles and increases the homogeneity of fresh concrete. One obtains more compact concrete featuring increased water tightness and enhanced resistances to frost and other aggressive substances. Plasticiser TM XR-100 can perfectly be used in combination with Superplasticisers OFT-II (Art. No. 1303), OFT-III (Art. No. 1301) and OFT-4 (Art. No. 1309).

Application

Plasticiser TM XR-100 is used:

- to increase the consistency of concrete without changing the water-cement ratio which increases workability and compactness
- to enhance compressive strength by reducing the water-cement ratio, while obtaining constant workability
- to produce high-quality concrete, fair faced concrete, highly-reinforced concrete or heavily-compacted, sharp-edged concrete stones that are true to size

Dosage

- Min. dosage: 0.1% of the cement weight
- Max. dosage: 0.4% of the cement weight
- Method of adding and point of time: preferably added directly after the mix water

Technical data

- State of aggregation: liquid
- Colour: brown
- Density (kg/l): 1.17
- pH-Value: 4.0
- max. alkali content (% Na₂O-eq): 0.5
- max. chloride content (%): 0.1
- Colour code: yellow
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

Remarks

Accidental overdosing of Plasticiser TM XR-100 might prolong setting times. There won't be negative consequences as long as the concrete is thoroughly cured to avoid premature dehydration.

Product description

Plasticiser TM CX-200 reduces the surface tension of the mix water and thus enables fast wetting of the aggregates and specially of the cement particles. A possible reduction of the water content depends on the dosage of this admixture, the cement type and the grading of the aggregate. Using Plasticiser TM CX-200 allows to reduce the water-cement ratio which, consequently, results in increased concrete properties. The distinct dispersing properties of this product diminish coagulation of the cement particles and lead to an increased workability of fresh concrete because of the enhanced fluidity of the cement paste. Plasticiser TM CX-200 diminishes the sedimentation of cement and other fine particles and distributes better homogeneity and compactness to the fresh concrete. This leads to a tight concrete structure exhibiting increased water tightness and resistances against frost and aggressive environmental influences. Casting and compacting of Plasticiser TM CX-200-treated concrete are facilitated.

Application

Plasticiser TM CX-200 can be used:

- to increase consistency without changing water content and water-cement ratio which leads to increased workability and compactness
- to enhance compressive strength by reducing the water-cement ratio while the consistency remains constant
- to bridge the transport of ready-mixed concrete

Plasticiser TM CX-200 is used:

- to produce high-quality concrete of all kinds
- to produce fair faced concrete
- to produce heavily-reinforced concrete
- to produce inherently-stable, sharp-edged artificial stones with a compact structure

Dosage

- Min. dosage: 0.1% of the cement weight
- Max. dosage: 1.0% of the cement weight
- Method of adding and point of time: preferably added directly after the mix water

Technical data

- State of aggregation: liquid
- Colour: brown
- Density (kg/l): 1.15
- pH-Value: 4.5
- max. alkali content (% Na₂O eq): 0.5
- max. chloride content (%): 0.1
- Colour code: yellow
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Liquid: Cans, barrels, containers, bulk.

Powder: Sacks, pallets, big bags.

Remarks

Accidental overdosing of Plasticiser TM CX-200 might slow down the hardening process. There won't be negative consequences as long as the concrete is thoroughly cured to avoid premature dehydration.

Product description

Stone admixture TM R enhances the properties of earth-moist concrete and accelerates the hardening process. This admixture reduces the surface tension of the mix water which provides for more intense wetting of the aggregates and cement particles. This results in earth-moist concrete obtaining early green strength. After compacting and immediate removal of formwork, concrete products treated with Stone admixture TM R keep their inherent stability and exhibit smoother surfaces.

Application

Stone admixture TM R is used mainly if earth-moist concrete is to develop great green strength in a short period of time, e.g. in the production of paving stones, or if smooth surfaces are requested.

Dosage

- Min. dosage: 0.02% of the cement weight
- Max. dosage: 0.6% of the cement weight
- Method of adding and point of time: preferably added directly after the mix water

Technical data

- State of aggregation: liquid
- Colour: brown
- Density (kg/l): 1.15
- pH-Value: 4.5
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): 0.1
- Colour code: yellow
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

Product description

Plasticiser TM BV-X is a plasticiser containing modified natural substances and offers a wide variety of possible applications. The effects of this product are very similar to the properties of Plasticiser TM (Art. No. 1201). However, there are differences. The reduction of air pores caused by Plasticiser TM BV-X is much more thoroughly and moreover, it diminishes foam generation on the surface. Plasticiser TM BV-X diminishes the surface tension of the mix water, thus it enhances the wetting of the aggregates, especially of the cement particles. The possible reduction of the water content is dependent on the dosage of the admixture, the cement type and the grading of the aggregates. Pronounced dispersing properties prevent coagulation of the cement particles which, because of the enhanced flowability of the cement paste, results in a distinct plasticisation of the fresh concrete. Plasticiser TM BV-X reduces the sedimentation of cement and other fine particles thus giving the fresh concrete a good homogeneity and compactness. This finally leads to a more compact concrete structure exhibiting enhanced water tightness and better resistances against frost and aggressive environmental influences. Casting and compaction of Plasticiser TM BV-X-added concrete is made easier.

Application

Plasticiser TM BV-X is used to increase the consistency without changing the water-cement ratio to enhance workability and compactness of the concrete. Moreover, it is used to increase compressive strength and obtain a constant workability by lowering the water-cement ratio. This product is added for the production of high-quality concrete of all kinds, fair faced concrete, heavily-reinforced concrete and inherently-stable, sharp-edged artificial stones with a compact structure.

Dosage

- Min. dosage: 0.1% of the cement weight
- Min. dosage: 1.0% of the cement weight
- Method of adding and point of time: preferably added directly after the mix water

Technical data

- State of aggregation: liquid
- Colour: brown
- Density (kg/l): 1.14
- pH-Value: 4.0
- max. alkali content (% Na₂O eq): 5.0
- max. chloride content (%): 0.1
- Colour code: yellow
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

Remarks

Accidental overdosing of Plasticiser TM CX-200 might prolong setting times. There won't be negative consequences as long as the concrete is thoroughly cured to avoid premature dehydration.

4.1 SUPERPLASTICISERS FOR CONCRETE

Superplasticiser TM OFT-III con. 40% (1301)
 Superplasticiser TM OFT-III con. 32% (1339)
 Superplasticiser TM OFT-III con. 27% (1326)
 Superplasticiser TM OFT-III Powder F con. 100% (1302)

Product description

Superplasticiser TM OFT-III is a product on the basis of modified natural substances that offers a wide variety of possible applications for concrete and plaster. The product increases the properties of fresh and hardened concrete of all qualities and consistencies. It can be used for all kinds of concrete and plaster. Superplasticiser TM OFT-III holds excellent dispersing properties and causes substantial plasticisation, even with sharp sand or sand that doesn't hold a sufficient quantity of fine particles. Superplasticiser TM OFT-III doesn't have a negative influence on the hydration process of binders.

Application

Superplasticiser TM OFT-III is used for the production of concrete or plaster with a low water-cement ratio, improved workability and increased tightness to enhance the qualities of the concrete or plaster. It can also be used to improve the compressive strength of fluid concrete or within the production of high-quality concrete, concrete or plaster with special properties, concrete for heavily-reinforced concrete parts, fair faced concrete, fluid concrete, pumped concrete, lightweight concrete, aerated concrete and plaster elements.

Dosage

- Min. dosage (con. 40%): 0.4% of the cement weight
- Max. dosage (con. 40%): 2.0% of the cement weight
- Method of adding and point of time: preferably added to the mix water, or to the ready mix

Technical data

40%	32%	27%	100%
State of aggregation:			
liquid	liquid	liquid	powder
Colour:			
brown	brown	brown	brown
Density (kg/l):			
1.19	1.15	1.14	0.77
pH-Value:			
7.0	7.5	7.5	n.a.
max. alkali content (% Na ₂ O eq):			
8.5	6.0	5.0	15.0
max. chloride content (%):			
0.1	0.1	0.1	0.1
Colour code:			
grey	grey	grey	grey
Storage: dry, frost-protected, in closed packaging			
Shelf-life: when stored correctly at least 1 year, after date of production.			

Packaging

Liquid: Cans, barrels, containers, bulk.
 Powder: Sacks, pallets, big bags.

Product description

Superplasticiser TM OFT-II is a concrete admixture that plasticises concrete and prolongs the processing time. Superplasticiser TM OFT-II contains surface-active substances which allow improved wetting especially of the finest particles. By adding this product, the consistency of concrete is considerably improved, which allows to significantly reduce the water-cement ratio. Transport and processing time are prolonged by a retarding component. The slight retardation of the start of the hardening process depends on the dosage of the plasticiser, the cement type and the temperature.

Application

Superplasticiser TM OFT-II is applied to produce concrete with a low water-cement ratio while at the same time workability is improved, tightness is enhanced and concrete properties are increased. The product can also be added to improve compressive strength of fluid concrete. Further, Superplasticiser TM OFT-II is used to produce high-quality concrete for fair faced concrete, flow concrete, pumped concrete or lightweight concrete.

Dosage

- Min. dosage: 0.4% of the cement weight
- Max. dosage: 1.2% of the cement weight
- Method of adding and point of time: preferably added to the mix water, or to the ready mix

Technical data

- State of aggregation: liquid
- Colour: brown
- Density (kg/l): 1.11
- pH-Value: 8.0
- max. alkali content (% Na₂O-eq): 5.0
- max. chloride content (%): 0.1
- Colour code: grey
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

Product description

Superplasticiser TM K3T-11+H is a highly effective concrete admixture with special properties. The product can be applied for different purposes. Superplasticiser TM K3T-11+H effectively plasticises the mix. This admixture gives plasticising properties to the concrete by reducing the surface tension of the mix water. Special components improve the dispersing effects of the cement particles which results in the fact that, compared to a base concrete, a higher quantity of cement particles can hydrate. This leads to a greater final strength. The consistency of the fresh concrete remains stable for a longer period of time. Higher dosage causes a prolonged processing time, which depends on cement type, concrete temperature and consistency class. Superplasticiser TM K3T-11+H is particularly suitable for the production of bulk concrete. Tensions in the concrete elements due to temperatures are significantly reduced as the generation of hydration heat is extended over a longer period of time. Using Superplasticiser TM K3T-11+H for the production of concrete used in road construction is definitely advantageous.



Application

Superplasticiser TM K3T-11+H is used:

- to produce concrete with a low water-cement ratio to obtain a better workability
- to increase the hydration of the cement for improved final strength
- to produce concrete for road construction, for example concrete pavements, traffic barriers or sound walls using slipforms
- to produce concrete of which the processing time has to be securely prolonged and retarded, e.g. because of temporary storage in silos or other delays
- to produce underwater concrete which is cast by delivery chute or concrete pump
- to produce concrete that is applicable in slip forms, with a content of about 5% of air pores, e.g. for channels, walls, and so on
- to produce colloidal concrete in combination with Injex TM (EH) (Art. No. 8106)
- to produce concrete that is to be cast as a filler (joining of concrete elements) in combination with Acrytekt TM (Art. No. 3302)
- to produce concrete for wastewater treatment plants, water towers, or other devices for potable water

Dosage

- Min. dosage: 0.2% of the cement weight
- Max. dosage: 2.0% of the cement weight
- Method of adding and point of time: preferably ad to the mix water or with the last partial amount of the mix water

Technical data

- State of aggregation: liquid
- Colour: brown
- Density (kg/l): 1.14
- pH-Value: 7.0
- max. alkali content (% Na₂O-eq): 5.0
- max. chloride content (%): 0.1
- Colour code: grey
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

Remarks

Superplasticiser TM K3T-11+H is not to be used with high-alumina cement.

Product description

Prefab Admixture TM is a water-reducing admixture. On one hand, it improves workability and on the other hand it causes fast green strength. This product was especially designed for concrete of a high workability which is used, among others, in the concrete products industry where thixotropic properties are important. Prefab Admixture TM allows a significant reduction of the water content, or, without reducing the water content, increases the workability of concrete. The combination of high-quality basic materials contained in this product prevents segregation and avoids bleeding. The effects of Prefab Admixture TM last for about 30 minutes and depend mainly on concrete and environmental temperatures. After these 30 minutes, workability will start decreasing. Prefab Admixture TM doesn't hold retarding properties.

Application

Prefab Admixture TM is used:

- to manufacture high-quality concrete
- to manufacture heavily-reinforced concrete elements

Dosage

- Min. dosage: 0.4% of the cement weight
- Max. dosage: 2.0% of the cement weight
- Method of adding and point of time: preferably added to the ready mix, might be added to the mix water

Technical data

- State of aggregation: liquid
- Colour: brown
- Density (kg/l): 1.13
- pH-Value: 9.0
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): 0.1
- Colour code: grey
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

Product description

Superplasticiser TM OFT-II 84/39 is an admixture which powerfully plasticises concrete and, moreover, prolongs the processing time of concrete. It can be used as a plasticiser and thus is especially suitable for ready-mixed concrete. Superplasticiser TM OFT-II 84/39 contains surface-active substances that stimulate the wetting of the aggregate, particularly of the finest particles. The product has substantial plasticising properties, which allows a considerable reduction of the water-cement ratio. The processing time is prolonged to about 2-3 hours and depends on cement type, water-cement ratio, dosage and temperature.

Application

Superplasticiser TM OFT-II 84/39 is added:

- for the production of concrete with a low water-cement ratio while workability and compactness are improved and the quality of the concrete is increased
- to increase the compressive strength of fluid concrete
- for the production of high-quality concrete, special kinds of concrete, heavily-reinforced concrete parts, fair-faced concrete, fluid concrete, pumped concrete, lightweight concrete and transport concrete

Dosage

- Min. dosage: 0.4% of the cement weight
- Max. dosage: 1.0% of the cement weight
- Method of adding and point of time: preferably added to the mix water, or to the ready mix

Technical data

- State of aggregation: liquid
- Colour: brown
- Density (kg/l): 1.17
- pH-Value: 8.0
- max. alkali content (% Na₂O-eq): 8.5
- max. chloride content (%): 0.1
- Colour code: grey
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

Product description

Superplasticiser TM 83/6 is a ready-to-use admixture for the production of fluid concrete that allows a considerable reduction of the water-cement ratio. Superplasticiser TM 83/6 is a surface-active substance which enhances the distribution of the cement particles and improves the coherence and structure of the concrete. There is no negative impact on the hydration process. Superplasticiser TM 83/6 enables you to benefit of:

- homogenous concrete mixes
- reduced bleeding
- improved cement hydration
- lowering of the water-cement ratio while obtaining constant workability

Application

Superplasticiser TM 83/6 is used for the production of high-quality concrete. There are many possible uses for this admixture especially in the production of precast concrete parts. The surfaces of the concrete are remarkably smooth and almost non-porous. Additionally, the tightness and the resistance to abrasion are improved.

Dosage

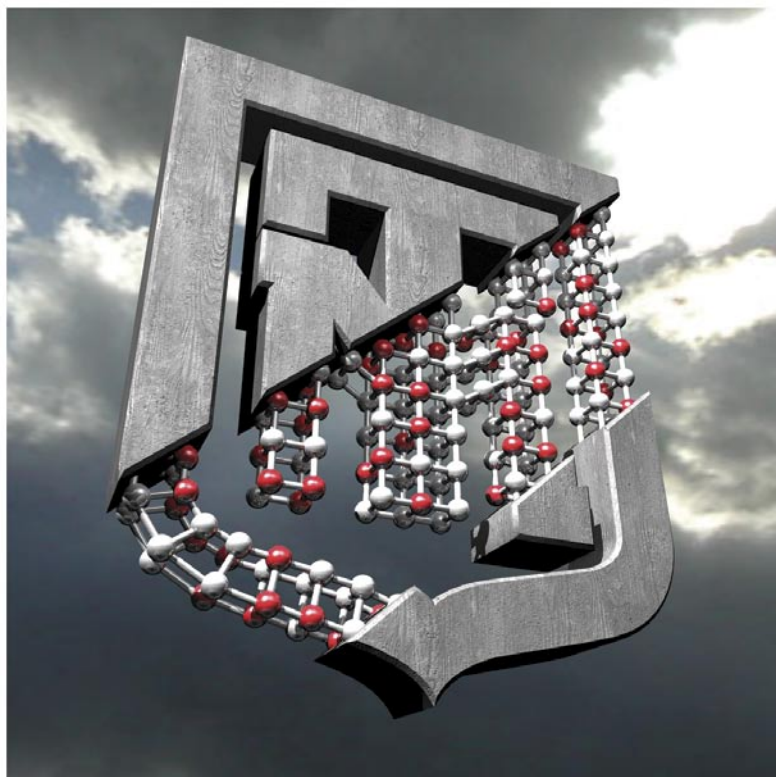
- Min. dosage: 0.4% of the cement weight
- Max. dosage: 2.0% of the cement weight
- Method of adding and point of time: preferably added to the mix water or else together with the aggregates

Technical data

- State of aggregation: liquid
- Colour: brown
- Density (kg/l): 1.14
- pH-Value: 7.0
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): 0.1
- Colour code: grey
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.



Product description

Superplasticiser TM OFT-III+O is a product on the basis of modified natural substances and offers a great variety of possible applications. Properties of fresh and hardened concrete are improved in all kinds of concrete and consistency classes. Superplasticiser TM OFT-III+O causes extraordinary plasticisation even if sharp sands or sands with a low content of fine particles are used. There is no negative influence on the hydration process of cement caused by this product. The base concrete should be of consistency class F2, so that an F4-consistency can be obtained by adding Superplasticiser TM OFT-III+O. That means, in practice, improved workability, homogenous structure and high tightness of the concrete. Moreover, the product reduces the content of air pores and diminishes possible foam generation on the surface.

Application

Superplasticiser TM OFT-III+O is used:

- to produce concrete with a low water-cement ratio and improved workability and compactness to enhance concrete properties
- to improve the compressive strength of fluid concrete
- to produce high-quality concrete, special kinds of concrete, heavily-reinforced concrete parts, fair faced concrete, pumped concrete or light-weight concrete

Dosage

- Min. dosage: 0.4% of the cement weight
- Max. dosage: 2.0% of the cement weight
- Method of adding and point of time: preferably added to the ready mix

Technical data

- State of aggregation: liquid
- Colour: brown
- Density (kg/l): 1.20
- pH-Value: 7.5
- max. alkali content (% Na₂O-eq): 8.5
- max. chloride content (%): 0.1
- Colour code: grey
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

SUPERPLASTICISER TM OFT-4

Superplasticiser TM OFT-4 con. 40% (FM) (1309)
 Superplasticiser TM OFT-4 con. 20% (FM) (1337)
 Superplasticiser TM OFT-4 P1 (FM) (1349)

Product description

Superplasticiser TM OFT-4 increases the workability of concrete and mortar. Superplasticiser TM OFT-4 is a surface active substance which allows a considerable reduction of the water content. Without reducing the water content, the consistency of fresh concrete is increased significantly when adding Superplasticiser TM OFT-4. Its dispersing properties prevent segregation and bleeding, even in cements with a slow strength development. The cement hydration is sped up, therefore there is no prolongation of the processing time for concrete that already has a short processing time. The effects of the product last for about 30 minutes, and after this period the consistency of the fresh concrete decreases again.

Application

Superplasticiser TM OFT-4 is applied:

- in the production of high-quality concrete
- to produce heavily-reinforced concrete parts
- in the production of columns, supports and walls in industrial construction
- for plasticising plaster

Dosage

- Min. dosage (con. 40%): 0.4% of the cement weight
- Max. dosage (con. 40%): 2.0% of the cement weight
- Method of adding and point of time: preferably added to the mix water, or to the ready mix

Technical data

40%	20%	100%
State of aggregation:		
liquid	liquid	powder
Colour:		
colourless	colourless	white
Density (kg/l):		
1.25	1.10	n.a.
pH-Value:		
10.5	9.5	n.a.
max. alkali content (% Na ₂ O eq):		
8.5	8.5	n.a.
max. chloride content (%):		
0.1	0.1	0.1
Colour code:		
grey	grey	grey
Storage: dry, frost-protected, in closed packaging		
Shelf-life: when stored correctly at least 1 year, after date of production.		

Packaging

Liquid: Cans, barrels, containers, bulk.

Powder: Sacks, pallets, big bags.

Product description

Superplasticiser TM OFT-II-DS is an admixture for concrete that increases the workability and retards the setting time of the concrete. It is an ideal plasticiser for the ready-mixed concrete industry. As the surface tension is reduced, even the finest particles in the concrete are thoroughly wetted. High-quality components polarise the cement particles, which leads to an improved generation of cement stone during the hydration process. Thus, tensile strength and compressive strength of the concrete are increased. The retardation of the setting time depends on the dosage and lasts for about 1 to 2 hours.

Application

Superplasticiser TM OFT-II-DS is mainly added to concrete of strength classes C12/15 to C 55/67 and is perfectly suitable for the production of fluid concrete, pumped concrete, reinforced concrete parts and lightweight concrete.

Dosage

- Min. dosage: 0.4% of the cement weight
- Max. dosage: 1.0% of the cement weight
- Method of adding and point of time: preferably added to the mix water or to the ready mix

Technical data

- State of aggregation: liquid
- Colour: brown
- Density (kg/l): 1.18
- pH-Value: 7.5
- max. alkali content (% Na₂O-eq): 8.5
- max. chloride content (%): 0.1
- Colour code: grey
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

Remarks

A dosage of more than 1% of the cement weight is possible if tests have been conducted beforehand to assess compatibility and retardation of the respective cement.



SUPERPLASTICISER TM OFT-5

Product description

Superplasticiser TM OFT-5 is a highly effective admixture for concrete and plaster. Superplasticiser TM OFT-5 improves the properties of fresh concrete and increases its strength. The product can be used for every kind and quality of concrete and plaster. The dispersing property of Superplasticiser TM OFT-5 causes a remarkable plasticisation, so that even for sharp-edged sands only a low content of finest particles is required. There is no negative impact on the hydration of the binder caused by this product. A concrete of consistency class F2 can obtain consistency class F4 if Superplasticiser TM OFT-5 is added. This results in improved workability, a more homogenous mix, higher tightness and in increased frost-resistance of the concrete. When used at low temperatures, Superplasticiser TM OFT-5 causes higher initial strength and therefore is particularly suitable for precast and ready-mixed concrete plants especially during the cold season.

Application

Superplasticiser TM OFT-5 is used:

- for the production of concrete and plaster with a low water-binder ratio, improved workability and compactness to increase the quality of the concrete or plaster
- to produce high-quality concrete, special kinds of concrete and mortar, heavily-reinforced concrete parts, fair faced concrete, pumped concrete, lightweight concrete, foamed plaster and plaster elements
- for the production of concrete for which short formwork removal times are requested

Dosage

- Min. dosage: 0.4% of the cement weight
- Max. dosage: 2.0% of the cement weight
- Method of adding and point of time: preferably added to the mix water

Technical data

- State of aggregation: liquid
- Colour: brown
- Density (kg/l): 1.22
- pH-Value: 9.0
- max. alkali content (% Na₂O-eq): 8.5
- max. chloride content (%): 0.1
- Colour code: grey
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

Product description

Superplasticiser TM OFT-6 is a highly effective concrete admixture offering a wide range of applications. Superplasticiser TM OFT-6 increases the properties of fresh concrete and provides for higher strength. Exceptionally good plasticisation is caused by the dispersing property of Superplasticiser TM OFT-6, even if sharp-edged sands are used that only contain a low quantity of fine particles. There is no negative influence on the hydration process caused by this product. The base concrete of consistency class F2 will reach consistency class F4 after adding Superplasticiser TM OFT-6. This means that workability and homogeneity are improved, tightness is increased and frost resistance is enhanced.

Application

Superplasticiser TM OFT-6 is applied:

- to produce concrete with a low water-cement ratio while workability and compactness are increased to improved the quality of the concrete
- for the production of high-quality concrete, special kinds of concrete, heavily-reinforced concrete, fair faced concrete, fluid concrete, pumped concrete and lightweight concrete

Dosage

- Min. dosage: 0.4% of the cement weight
- Max. dosage: 1.5% of the cement weight
- Method of adding and point of time: preferably added to the ready mix, a mixing time of 1 minute per m³ of concrete has to be observed

Technical data

- State of aggregation: liquid
- Colour: brown
- Density (kg/l): 1.15
- pH-Value: 7.5
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): 0.1
- Colour code: grey
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

Product description

Superplasticiser TM XB-140 is a surface active admixture and its properties allow a considerable reduction of the water content. Without changing the water content, the workability of concrete and mortar is significantly improved. The good dispersing property increases the coherence of the concrete and prevents bleeding. Processing time is about 40 minutes before the consistency starts to decrease again. Processing time depends on cement type, quantity of cement, the water-cement ratio and the temperature. The homogeneity of fresh concrete and mortar is increased in particular.

Application

Superplasticiser TM XB-140 is used in the production of high-quality concrete, heavily-reinforced concrete parts that are installed outdoors, as for example walls and pillars. Superplasticiser TM XB-140 can be added to all kinds of reinforced or non-reinforced concrete as well as pre-stressed concrete parts.

Dosage

- Min. dosage: 0.2% of the cement weight
- Max. dosage: 2.0% of the cement weight
- Method of adding and point of time: preferably added to the ready mix

Technical data

- State of aggregation: liquid
- Colour: brown
- Density (kg/l): 1.20
- pH-Value: 5.0
- max. alkali content (%Na₂O-eq): 1.5
- max. chloride content (%): 0.1
- Colour code: grey
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

Product description

Superplasticiser TM CF-110 consists of high-quality, modified basic materials and is used in the production of special kinds of concrete and mortar. Superplasticiser TM CF-110 improves the properties of fresh and hardened concrete. This product has good dispersing effects and therefore enhances the consistency of fresh concrete. There is no negative effect on the hydration process caused by this product. Superplasticiser TM CF-110 gives the concrete or mortar a better homogeneity and thus facilitates the processing and increases the tightness and frost-resistance of concrete.

Application

Superplasticiser TM CF-110 is used:

- for the production of concrete with a low water-cement ratio with increased workability and tightness to improve the quality of the concrete
- to produce high-quality concrete and mortar products

Dosage

- Min. dosage: 0.4% of the cement weight
- Max. dosage: 2.0% of the cement weight
- Method of adding and point of time: preferably added directly after the mix water

Technical data

- State of aggregation: liquid
- Colour: brown
- Density (kg/l): 1.19
- pH-Value: 7.0
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): 0.1
- Colour code: grey
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

Product description

Superplasticiser TM OFT-600 is an admixture that has been purpose-built for concrete poor of C3A. It is particularly suitable for concrete containing CEM-III-NA cement but also for CEM I-NA cement of a reduced C3A content. In all qualities and consistency classes, Superplasticiser TM OFT-600 considerably increases the properties of fresh and hardened concrete. Moreover, the use of Superplasticiser TM OFT-600 results in exceptional plasticisation even for sharp sands and sands with a low content of fine particles.

Application

Superplasticiser TM OFT-600 is used:

- to produce concrete with a low water-cement ratio
- for the production of fair faced concrete, fluid concrete, pumped concrete, heavily-reinforced concrete parts and high-performance concrete

Dosage

- Min. dosage: 0.4% of the cement weight
- Max. dosage: 2.0% of the cement weight
- Method of adding and point of time: preferably added to the ready mix shortly before casting, a mixing time of 1 minute per m³ has to be observed

Technical data

- State of aggregation: liquid
- Colour: brown
- Density (kg/l): 1.14
- pH-Value: 8.0
- max. alkali content (% Na₂O-eq): 8.5
- max. chloride content (%): 0.1
- Colour code: grey
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

Product description

Prefab admixture TM M6 is an admixture used for the reduction of the water-cement ratio or the increase of workability. Additionally, the concrete is being stabilised and the development of initial strength is enhanced considerably. Without changing the water-cement ratio of the base concrete, adding Prefab admixture TM M6 will considerably increase workability. Adding Prefab admixture TM M6 to a base concrete with a reduced water-cement ratio will increase initial strength, which allows earlier removal of the formwork. The surfaces of the concrete will be very smooth and compact because of the increased compactness. Depending on cement type, cement class, water-cement ratio and temperatures, processing time of the concrete will be about 30 minutes if Prefab admixture TM M6 is added.

Application

Prefab admixture TM M6 was purpose-built for the production of high-quality concrete, heavily-reinforced (pre-stressed) concrete parts, concrete parts of which the surfaces are required to be compact and even as well as for earth-moist concrete that has to be heavily compacted.

Dosage

- Min. dosage: 0.4% of the cement weight
- Max. dosage: 2.0% of the cement weight
- Method of adding and point of time: preferably added to the ready mix or with the last partial amount of mix water

Technical data

- State of aggregation: liquid
- Colour: brown
- Density (kg/l): 1.14
- pH-Value: 5.0
- max. alkali content (% Na₂O-eq): 5.0
- max. chloride content (%): 0.1
- Colour code: grey
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

Superplasticiser TM XB-141 con. 35% (1322)

Superplasticiser TM XB-141 Powder con. 100% (1328)

Product description

Superplasticiser TM XB-141 is a concrete admixture with a highly plasticising effect. It is an ideal plasticiser for the transport concrete industry. Superplasticiser TM XB-141 contains surface active substances which stimulate the thorough wetting of even the finest particles of the concrete. Adding Superplasticiser TM XB-141 to the mix will considerably increase its consistency which allows to reduce the water-cement ratio. When applying CEM-III cements at low temperatures and with an increased dosage of the admixture, the start of the setting process might be retarded.

Application

Superplasticiser TM XB-141 is used:

- to produce concrete with a low water-cement ratio, increased workability and compactness, improvement of the concrete quality
- for the production of high-quality concrete such as fair faced concrete, fluid concrete, pumped concrete and lightweight concrete

Dosage

- Min. dosage (con. 35%): 0.4% of the cement weight
- Max. dosage (con. 35%): 2.0% of the cement weight
- Method of adding and point of time: preferably added to the mix water or to the ready mix

Technical data

35%	100%
State of aggregation:	
liquid	powder
Colour:	
brown	brown
Density (kg/l):	
1.17	n.a.
pH-Value:	
5.0	n.a.
max. alkali content (% Na ₂ O eq):	
5.0	n.a.
max. chloride content (%):	
0.1	0.1
Colour code:	
grey	grey
Storage: dry, frost-protected, in closed packaging	
Shelf-life: when stored correctly at least 1 year, after date of production.	

Packaging

Liquid: Cans, barrels, containers, bulk.

Powder: Sacks, pallets, big bags.

Product description

Plaster plasticiser TM XB-140 C is an admixture that considerably increases the workability of plaster. Due to its high efficiency, Plaster plasticiser TM XB-140 C allows a remarkable reduction of the water content. This reduction of the water content leads to a diminished need of energy for the manufacturing of plaster products. The dispersing properties of Plaster plasticiser TM XB-140 C enable the best possible wetting of the particles, thus a very high flowability can be obtained with small amounts of water.

Application

Plaster plasticiser TM XB-140 C was purpose-built for the use in the plaster products industry, where fast hardening has to be obtained.

Dosage

- Min. dosage: 0.2% of the binder weight
- Max. dosage: 2.0% of the binder weight
- Method of adding and point of time: preferably added to the ready mix or with the last partial amount of mix water

Technical data

- State of aggregation: liquid
- Colour: brown
- Density (kg/l): 1.20
- pH-Value: 5.0
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): 0.1
- Colour code: yellow
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

Superplasticiser TM ON-1 con. 40% (FM) (1324)
Superplasticiser TM ON-1 con. 20% (FM) (1329)

Product description

Superplasticiser TM ON-1 is a highly efficient concrete admixture for special applications. Especially for the production of high-performance concrete (>C 60/75), this admixture allows to obtain ideal results regarding the requested consistency and strength development. This product is mainly applied if special fillers are to be used, for example to increase stability, or to improve strength and tightness. If the base concrete is of an F1 consistency, by adding Superplasticiser TM ON-1 an S3/F4 consistency will be obtained.

Application

Superplasticiser TM ON-1 is used:

- to produce high-performance concrete
- for the production of concrete with a low water-cement ratio
- for the production of self-compacting concrete
- to produce heavily-reinforced concrete parts

Dosage

- Min. dosage (con. 40%): 0.2% of the cement weight
- Max. dosage (con. 40%): 4.0% of the cement weight
- Method of adding and point of time: preferably added to the ready mix or with the last partial amount of mix water

Technical data

40%	20%
State of aggregation:	
liquid	liquid
Colour:	
colourless	colourless
Density (kg/l):	
1.25	1.12
pH-Value:	
10.5	10.0
max. alkali content (% Na ₂ O eq):	
8.5	6.0
max. chloride content (%):	
0.1	0.1
Colour code:	
grey	grey
Storage: dry, frost-protected, in closed packaging	
Shelf-life: when stored correctly at least 1 year, after date of production.	

Packaging

Cans, barrels, containers, bulk.

Superplasticiser TM ON-2 con. 39% (FM) (1325)
Superplasticiser TM ON-2 con. 20% (FM) (1330)

Product description

Superplasticiser TM ON-2 is a highly efficient concrete admixture for special applications. Especially for the production of high-performance concrete (>C 60/75), this admixture allows to obtain ideal results regarding the requested consistency and strength development. This product is mainly applied if special fillers are to be used, for example to increase stability, or to improve strength and compactness. If the base concrete is of an F1 consistency, by adding Superplasticiser TM ON-2 an S3/F4 consistency will be obtained. The product contains special substances which allow to be easily mixed with the concrete.

Application

Superplasticiser TM ON-2 is applied:

- for the production of high-performance concrete
- for the production of concrete with a low water-cement ratio
- to produce self-compacting concrete
- for the production of heavily-reinforced concrete

Dosage

- Min. dosage (con. 39%): 0.4% of the cement weight
- Max. dosage (con. 39%): 4.0% of the cement weight
- Method of adding and point of time: preferably added to the ready mix or with the last partial amount of mix water

Technical data

39%	20%
State of aggregation:	
liquid	liquid
Colour:	
colourless	colourless
Density (kg/l):	
1.24	1.12
pH-Value:	
10.5	10.5
max. alkali content (% Na ₂ O eq):	
8.5	6.0
max. chloride content (%):	
0.1	0.1
Colour code:	
grey	grey
Storage: dry, frost-protected, in closed packaging	
Shelf-life: when stored correctly at least 1 year, after date of production.	

Packaging

Cans, barrels, containers, bulk.

Product description

Just as Superplasticiser TM K3T-11+H, this product improves the concrete properties and increases compressive strength. It can be used for many different concrete qualities and is added to concrete if different periods of retardation are requested. Superplasticiser TM K3T-11+H concentrate changes the rheologic properties of fresh concrete and mortar. This superplasticiser is a high-range water-reducing admixture that reduces the surface tension which causes a highly plasticising effect. A special component provides for the better dispersion of the cement particles which results in the hydration of a higher quantity of the cement, compared to the base concrete. Increased final strength is obtained by the improved wetting of the cement particles and the reduction of the surface tension and the water content. The workability of the concrete remains constant for about 2 hours. The dosage influences the period of retardation, depending on the cement type, the concrete temperature and the consistency.

Dosage

N.a.

Technical data

- State of aggregation: liquid
- Colour: brown
- Density (kg/l): 1.23
- pH-Value: 7.0
- max. alkali content (% Na₂O-eq): 14.0
- max. chloride content (%): 0.1
- Colour code: grey
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.



Superplasticiser TM ON-S 1000 con. 39% (1331)
 Superplasticiser TM ON-S 1000 con. 20% (1332)
 Superplasticiser TM ON-S 1000 con. 12% (1333)

Product description

Superplasticiser TM ON-S 1000 is a highly efficient product. Even with very low dosages, consistency classes can be improved from C1 to F4. The product prolongs the processing time, after which begins a fast strength development.

Application

Superplasticiser TM ON-S 1000 is added to the mix if the concrete is required to fulfil high expectations regarding consistency, strength development and durability. The product is especially suitable for the production of tight concrete. Because of the very high initial strength obtainable, this product is particularly applicable in the precast industry.

Remarks

Dosing systems have to be able to process fluids of a viscosity of 1500 mPa.s.

Dosage

- Min. dosage (con. 39%): 0.1% of the cement weight
- Max. dosage (con. 39%): 2.0% of the cement weight
- Method of adding and point of time: preferably added to the ready mix or with the last partial amount of mix water

Technical data

39%	20%	12%
State of aggregation:		
liquid	liquid	liquid
Colour:		
brown	brown	brown
Density (kg/l):		
1.09	1.04	1.02
pH-Value:		
6.5	6.0	6.0
max. alkali content (% Na ₂ O eq):		
3.0	1.5	1.0
max. chloride content (%):		
0.1	0.1	0.1
Colour code:		
grey	grey	grey
Storage: dry, frost-protected, in closed packaging		
Shelf-life: when stored correctly at least 1 year, after date of production.		

Packaging

Cans, barrels, containers, bulk.

Product description

Superplasticiser TM ON-S1203 con.30% is a highly efficient superplasticiser made of high-quality basic materials. Superplasticiser TM ON-S1203con.30% was especially developed for the application in the precast industry. Depending on the composition of the concrete, high consistencies can be obtained even at low dosages; for example from C1 to F4 and higher. The workability can be prolonged depending on the cement type and temperature. The use of Superplasticiser TM ON-S1203con.30% enables a considerable reduction of the water-cement ratio.

Application

Superplasticiser TM ON-S1203 con.30% can be used in concrete whenever high consistencies have to be retained for a long period of time. The superplasticiser is first and foremost used in the precast industry as it meets the demands regarding high consistencies and prolonged open times. Depending on the composition of the concrete, high early strength can be obtained.

Dosage

- Min. dosage : 0.2% of the cement weight
- Max. dosage: 2.0% of the cement weight
- Method of adding and point of time: preferably added to the ready mix or during the fine dosage of the mix water

Technical data

- State of aggregation: liquid
- Colour: light brown
- Density (kg/l): 1.07
- pH-Value: 6.0
- max. alkali content (% Na₂O-eq): 2.0
- max. chloride content (%): 0.1
- Colour code: grey
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

Superplasticiser TM ON-S 2000 con. 39% (1334)
 Superplasticiser TM ON-S 2000 con. 20% (1335)
 Superplasticiser TM ON-S 2000 con. 12% (1336)
 Superplasticiser TM ON-S 2000P con. 100% (1341)
 Superplasticiser TM ON-S 2000P-F con. 100% (1380)

Product description

Superplasticiser TM ON-S 2000 is a highly efficient product. Even with very low dosages, consistency classes can be improved from C1 to F4 and higher. The superplasticiser is effective for about 45 minutes, depending on the composition of the mix and the cement type. After the processing time a fast strength development process begins.

Application

Superplasticiser TM ON-S 2000 is used if there are great expectations to be fulfilled regarding consistency, strength development and durability. The product is especially suitable for the production of tight concrete. Due to the extremely fast strength development it is possible to remove the formwork earlier which qualifies the product for the application in the pre-cast industry where it can be used for the production of self-compacting concrete.

Remarks

Dosing systems have to be able to process fluids of a viscosity of 1500 mPa.s.

Dosage

- Min. dosage (con.39%): 0.1% of the cement weight
- Max. dosage (con.39%): 2.0% of the cement weight
- Method of adding and point of time: preferably added to the ready mix or with the last partial amount of mix water

Technical data

39%	20%	12%	100%	100% F
State of aggregation:				
liquid	liquid	liquid	powder	powder
Colour:				
brown	brown	brown	brown	brown
Density (kg/l):				
1,10	1,05	1,03	0,54	0,54
pH-Value:				
6,5	6,0	6,0	n.a.	n.a.
max. alkali content (% Na ₂ O-eq):				
4,0	2,0	1,5	4,0	4,0
max. chloride content (%):				
0,1	0,1	0,1	0,1	0,1
Colour code:				
grey	grey	grey	grey	grey
Storage: dry, frost-protected, in closed packaging				
Shelf-life: when stored correctly at least 1 year, after date of production.				

Packaging

Cans, barrels, containers, bulk..
 Powder: Sacks, pallets, big bags.

Superplasticiser TM ON-S 4000 con. 30% (1342)
Superplasticiser TM ON-S 4000 con. 20% (1348)

Product description

Superplasticiser TM ON-S 4000 is a highly efficient concrete admixture. Even with low dosages, improving consistency from C1 to F4 or higher is possible. The product has a processing time of approximately 45 minutes depending on the mix design and the concrete type used. Strength development will begin immediately after processing time.

Application

Superplasticiser TM ON-S 4000 can be added to concrete if the requirements regarding workability, strength development and durability are very high. The product is also highly suitable for the production of fluid tight concrete. During production, special components can be added to Superplasticiser TM ON-S 4000 to prolong the processing time of the concrete, which makes it perfectly suitable for the use in ready-mixed concrete plants.

Remarks

Dosage systems will have to be able to handle fluids of a viscosity of 1500 mPa.s.

Dosage

- Min. dosage (con. 30%): 0.1% of the cement weight
- Max. dosage (con. 30%): 2.0% of the cement weight
- Method of adding and point of time: preferably added to the ready mix or with the last partial amount of mix water

Technical data

30%	20%
State of aggregation:	
liquid	liquid
Colour:	
brown	brown
Density (kg/l):	
1.08	1.07
pH-Value:	
6.4	6.0
max. alkali content (% Na ₂ O eq):	
2.0	0.8
max. chloride content (%):	
0.1	0.1
Colour code:	
grey	grey
Storage: dry, frost-protected, in closed packaging	
Shelf-life: when stored correctly at least 1 year, after date of production.	

Packaging

Cans, barrels, containers, bulk.

Superplasticiser TM ON-S 5000 con.
35% (1343)
Superplasticiser TM ON-S 5000 con.
26% (1344)
Superplasticiser TM ON-S 5000 con.
20% (1360)

Product description

Superplasticiser TM ON-S 5000 is a highly effective concrete admixture. Even with low dosages, improving consistency from C1 to F4 or higher is possible. The product enables processing times of approximately 60 minutes, depending on the mix design and the concrete type used. Strength development will begin immediately after processing time.

Application

Superplasticiser TM ON-S 5000 can be added to concrete if the requirements regarding workability, strength development and durability are very high. The product is also highly suitable for the production of fluid tight concrete. The extremely fast strength development allows to shorten form-work removal times, which makes this product perfectly applicable in precast plants.

Remarks

When adding the superplasticiser in the mixing truck at the building site, a mixing time of 1 minute per m³ is to be observed. Dosage systems will have to be able to handle fluids of a viscosity of 1500 mPa.s.

Dosage

- Min. dosage (con. 35%): 0.1% of the cement weight
- Max. dosage (con. 35%): 2.0% of the cement weight
- Method of adding and point of time: preferably added to the ready mix or with the last partial amount of mix water

Technical data

35%	26%	20%
State of aggregation:		
liquid	liquid	liquid
Colour:		
brown	brown	brown
Density (kg/l):		
1.10	1.08	1.06
pH-Value:		
6.9	6.5	6.5
max. alkali content (% Na ₂ O eq):		
4.0	2.5	2.0
max. chloride content (%):		
0.1	0.1	0.1
Colour code:		
grey	grey	grey
Storage: dry, frost-protected, in closed packaging		
Shelf-life: when stored correctly at least 1 year, after date of production.		

Packaging

Cans, barrels, containers, bulk.

POROFLOW TM

Poroflow TM (1345)
Poroflow TM P (1346)

Product description

Poroflow TM has been developed for the manufacture of porous concrete blocks. Poroflow TM is highly plasticising and stimulates the insertion of stable, big air pores. Adding Poroflow TM allows to reduce the water content. This diminishes the stickiness of porous concrete blocks for the cutting and in the autoclave. The final strength of porous concrete blocks is higher and the resistance against impact stress, as for example occurs during piling, packaging and transport, is by far greater when Poroflow TM is used. Additionally to reducing the water content, a slight reduction of cement can be made to obtain the same consistency. Moreover, Poroflow TM can be used to plasticise foamed concrete.

Remarks

Poroflow TM is not applicable for the use in standard concrete.

Dosage

- Dosage (liquid): min. 0.2% max. 2.0% of the binder weight
- Dosage (Powder): min. 0.1% max. 0.8% of the binder weight
- Method of adding and point of time: preferably added to the ready mix, Poroflow TM P can be added either to the dry or the ready mix

Technical data

Poroflow TM	Poroflow TM P
State of aggregation:	
liquid	powder
Colour:	
brown	brown
Density (kg/l):	
1.10	n.a.
pH-Value:	
6.5	n.a.
max. alkali content (% Na ₂ O eq):	
n.a.	n.a.
max. chloride content (%):	
0.1	0.1
Colour code:	
yellow	yellow
Storage: dry, frost-protected, in closed packaging	
Shelf-life: when stored correctly at least 1 year, after date of production.	

Packaging

Liquid: Cans, barrels, containers, bulk.

Powder: Sacks, pallets, big bags.

Product description

Superplasticiser TM ON-S 6000 is a highly concentrated product. Even with a low dosage, consistency increases from consistency class F1 to F4 and higher. With certain cement types and mix designs, processing time is approximately 60 minutes. After that, an extremely fast strength development begins. This can bridge transportation.

Application

Superplasticiser TM ON-S 6000 can be added to concrete if the requirements regarding workability, strength development and durability are very high. The product is also highly suitable for the production of fluid tight concrete.

Dosage

- Min. dosage: 0.1% of the cement weight
- Max. dosage: 2.0% of the cement weight
- Method of adding and point of time: preferably added to the ready mix or to the mix water

Technical data

- State of aggregation: liquid
- Colour: brown
- Density (kg/l): 1.10
- pH-Value: 6.9
- max. alkali content (% Na₂O-eq): 1.5
- max. chloride content (%): 0.1
- Colour code: grey
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

Remarks

If this superplasticiser is given to the ready mix on the construction site, a mixing time of 1 minute per m³ is to be observed. The dosage system has to be able to treat fluids of a viscosity of 1500 mPa.s.

POLYFLOW S100 CON. 20%**Product description**

Polyflow S100 con. 20% is a very efficient superplasticiser containing high-quality basic materials. This additive has especially been developed for the use in ready-mixed concrete, and very high consistencies are obtained even at low dosages. Workability is prolonged depending on the temperature, the cement type and the composition of the concrete. It is also possible to significantly decrease the water-cement ratio.

Application

Polyflow S100 con. 20% is used if long-lasting, high consistencies are required. This additive is especially used in ready-mixed concrete where it perfectly meets the demands of higher consistency and prolonged workability. The product is also very suitable for high-quality concrete formulas with a low water-cement ratio, for example for fluid-tight concrete floors.

Dosage

- Min. dosage: 0.2% of the cement weight
- Max. dosage: 2.0% of the cement weight
- Method of adding and point of time: preferably added to the ready mix or to the mix water

Technical data

- State of aggregation: liquid
- Colour: brown
- Density (kg/l): 1.04
- pH-Value: 6.0
- max. alkali content (% Na₂O-eq): 2.0
- max. chloride content (%): 0.1
- Colour code: grey
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

POLYFLOW S 180

Polyflow S180 con. 20% (1350)
Polyflow S180 con. 12% (1368)
Polyflow S180 con. 30% (1369)

Product description

Polyflow S 180 is a highly effective superplasticiser which improves the consistency already with a small dosage, from consistency class F2 to consistency class F4 and higher. Depending on the composition of the mix and the cement type, the concrete will have a processing time of about 45 minutes. As soon as the processing time is over, a very fast strength development will start.

Application

Polyflow S 180 is mainly used if the requirements regarding workability, strength development and durability are extreme. The product is also highly suitable for the production of fluid tight concrete. Depending on the composition of the mix, the temperature and the cement type, there is enough time for processing. As short formwork removal times can be obtained by adding this product, it is perfectly suitable to be used in pre-cast concrete plants.

Dosage

- Min. dosage: 0.2% of the cement weight
- Max. dosage: 2.0% of the cement weight
- Method of adding and point of time: preferably added to the mix water or directly after the mix water

Technical data

12%	20%	30%
State of aggregation:		
liquid	liquid	liquid
Colour:		
brown	brown	brown
Density (kg/l):		
1,07	1,04	1,06
pH-Value:		
6,2	6,0	6,2
max. alkali content (% Na ₂ O eq):		
1,5	2,0	3,0
max. chloride content (%):		
0.1	0.1	0.1
Colour code:		
grey	grey	grey
Storage: dry, frost-protected, in closed packaging		
Shelf-life: when stored correctly at least 1 year, after date of production.		

Packaging

Liquid: Cans, barrels, containers, bulk.

POLYFLOW S210 CON. 20%**Product description**

Polyflow S210 is a highly effective admixture for concrete. Already at a lower dosage, the consistency can be increased from S2 to F4 and higher. Depending on the composition of the mix and the cement type used, this superplasticiser enables a processing time of about 45 minutes, after which follows an extremely rapid strength development.

Application

Polyflow S210 is used whenever there are high expectations to be met regarding processing, strength development and durability. The product is especially suitable for concrete formulations for liquid-tight applications. Depending on the composition of the concrete, the temperature and the cement type, an adequate processing time can be obtained which enables a good finish of the concrete. At the same time, relatively short formwork removal times can be obtained, which makes this product especially suitable for the precast industry.

Dosage

- Min. dosage: 0.2% of the cement weight
- Max. dosage: 2.0% of the cement weight
- Method of adding and point of time: preferably added to the mix water, or added to the freshly mixed concrete directly after the last amount of mix water

Technical data

- State of aggregation: liquid
- Colour: lightbrown
- Density (kg/l): 1.04
- pH-Value: 6.0
- max. alkali content (% Na₂O-eq): 2.0
- max. chloride content (%): 0.1
- Colour code: grey
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

POLYFLOW S 550

Polyflow S550 con. 35% (1357)
 Polyflow S550 con. 27% (1358)
 Polyflow S550 con. 25% (1357)
 Polyflow S550 con. 20% (1358)

Product description

POLYFLOW S550 is an efficient, high-quality admixture for concrete if a prolonged processing time is requested. At a lower dosage, consistency can be increased from F1 to F4 and higher. This admixture provides for long processing times and a subsequent rapid strength development, depending on the composition of the mix and the cement type.

Application

Superplasticiser POLYFLOW S550 can be used for concrete whenever high demands are made regarding processing properties, strength development and durability. The product is especially suitable for liquid-tight concrete formulations. Depending on the composition of the concrete, the cement type and the temperature, open times can be prolonged to obtain a good finish of the concrete surface. At the same time, exceptionally short formwork removal times can be obtained, thus this admixture can likewise be used in the precast industry.

Dosage

- Min. dosage: 0.2% of the cement weight
- Max. dosage: 2.0% of the cement weight
- Method of adding and point of time: preferably added to the mix water or to the ready mix.

Technical data

35%	27%	25%	20%
State of aggregation:			
liquid	liquid	liquid	liquid
Colour:			
light brown	light brown	light brown	light brown
Density (kg/l):			
1,08	1,06	1,06	1,04
pH-Value:			
6,4	6,3	6,2	6,2
max. alkali content (% Na ₂ O eq):			
3,5	3,0	3,0	2,5
max. chloride content (%):			
0,1	0,1	0,1	0,1
Colour code:			
grey	grey	grey	grey
Storage: dry, frost-protectd, in closed packaging.			
Schelf-life: when stored correctly at least 1 year, after date of production.			

Packaging

Cans, barrels, containers, bulk.

POLY SMART SYSTEM PSS A

Product description

Poly Smart System PSS A is a highly effective superplasticiser which, already at low dosages, improves the consistency from consistency class F1 to consistency class F4 and higher. The product holds the consistency of the fresh concrete for about 45 minutes, depending on the composition of the mix, the cement type and the temperature. As soon as the processing time is over, a very fast strength development will start.

Application

Poly Smart System PSS A is used in cases where the requirements regarding workability, strength development and durability are extreme. The product is also highly suitable for the production of fluid tight concrete, SCC, high-performance concrete and more specialised applications. Because of the extremely fast strength development, formwork removal times can be substantially reduced, which makes this product perfectly useable for pre-cast concrete plants.

Dosage

- Min. dosage: 0.1% of the binder weight
- Max. dosage: 3.0% of the binder weight
- Method of adding and point of time: preferably added to the aggregates

Technical data

- State of aggregation: powder
- Colour: grey
- Density (kg/l): n.a.
- pH-Value: n.a.
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): 0.1
- Colour code: grey
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 6 months after date of production

Packaging

Sacks, pallets, big bags.

Remarks

This product was specially designed to shorten formwork removal times or to reduce the binder content. Poly Smart System PSS A can be used together with Poly Smart System PSS B (Art. No. 1020).

Polyflow 1500 con. 35% (1385)
Polyflow 1500 con. 20% (1352)

Product description

Polyflow 1500 ensures excellent workability even if the dosage is very low. The workability remains constant for quite a long period of time, depending on temperatures, cement type and composition of the concrete mix. Moreover, the water-cement ratio can be lowered considerably.

Application

Polyflow 1500 can be used if good workability and a long processing time are requested at the same time. This admixture is thus perfectly suitable for applications in precast concrete plants and for the use in ready mixed concrete industry. Using this admixture allows to reduce the water-cement ratio to produce concrete with liquid-tight properties.

Dosage

- Min. dosage: 0.2% of the cement weight
- Max. dosage: 2.0% of the cement weight
- Method of adding and point of time: preferably added to the ready mix or with the last partial amount of mix water

Technical data

20%	35%
State of aggregation:	
liquid	liquid
Colour:	
brown	brown
Density (kg/l):	
1.06	1.09
pH-Value:	
6.5	6.5
max. alkali content (% Na ₂ O eq):	
2.0	3.5
max. chloride content (%):	
0.1	0.1
Colour code:	
grey	grey
Storage: dry, frost-protected, in closed packaging	
Shelf-life: when stored correctly at least 1 year, after date of production.	

Packaging

Cans, barrels, containers, bulk.

Product description

Polyflow L 100 ensures good workability, even if it is added in a low dosage. Moreover, the workability will remain constantly high over a long period of time, depending on temperature, cement type and concrete composition. Polyflow L 100 can also be used to significantly reduce the water-cement ratio.

Application

Polyflow L 100 is added to the concrete if good workability and enduring consistency are requested. The admixture is perfectly suitable to be used in precast concrete and ready-mixed concrete plants. When this product is added to mix a concrete with a reduced water-cement ratio, high-quality concrete with liquid-tight properties can be obtained.

Dosage

- Min. dosage: 0.2% of the cement weight
- Max. dosage: 2.0% of the cement weight
- Method of adding and point of time: preferably added to the ready mix or with the last partial amount of mix water

Technical data

- State of aggregation: liquid
- Colour: brown
- Density (kg/l): 1.04
- pH-Value: 6.0
- max. alkali content (% Na₂O-eq): 1.0
- max. chloride content (%): 0.1
- Colour code: grey
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

POLYFLOW S413

Polyflow S413 con. 35% (1357)
Polyflow S413 con. 20% (1358)

Product description

Even with a low dosage, Polyflow S413 strongly improves the workability. Dependent on temperature, cement type and mix design, this workability is constant for a long period of time. The water-cement ratio can be considerably reduced.

Application

Polyflow S413 is applied if good, long-lasting workability is requested. The product is perfectly suitable for the precast industry and the ready-mixed concrete industry. When adding this admixture to reduce the water-cement ratio, high-quality concrete can be produced which is at the same time suitable for liquid-tight applications.

Dosage

- Min. dosage: 0.2% of the cement weight
- Max. dosage: 2.0% of the cement weight
- Method of adding and point of time: preferably added to the mix water or immediately after the last partial amount of mix water directly to the fresh concrete

Technical data

20%	35%
State of aggregation:	
liquid	liquid
Colour:	
brown	brown
Density (kg/l):	
1.03	1.06
pH-Value:	
6.0	6.0
max. alkali content (% Na ₂ O eq):	
2.0	3.0
max. chloride content (%):	
0.1	0.1
Colour code:	
grey	grey
Storage: dry, frost-protected, in closed packaging	
Shelf-life: when stored correctly at least 1 year, after date of production.	

Packaging

Cans, barrels, containers, bulk.

Product description

Flowpower TM S300 con. 17% represents the new generation of concrete additives. Efficiency and working properties have especially been adapted for the ready-mixed concrete industry. Depending on the cement used, very high consistencies and a long-lasting, good workability can be obtained already at low dosages. Flowpower TM S300 con. 17% offers the possibility to produce a ready-mixed concrete already holding the consistency demanded on site when it leaves the concrete plant. Concrete produced with Flowpower TM S300 con. 17% isn't 'sticky', which is a well-known fact for other high-performance superplasticisers.

Application

Flowpower TM S300 con. 17% can be used in a vast range of applications and for all required qualities. Casting and compaction of the concrete will be easy even at a low water-cement ratio. The product can be used as a plasticiser as well as a superplasticiser and thus allows the producer of ready-mixed concrete to optimise warehouse capacities.

Dosage

- Min. dosage: 0.2% of the cement weight
- Max. dosage: 2.0% of the cement weight
- Method of adding and point of time: preferably added to the ready mix or with the last partial amount of mix water

Technical data

- State of aggregation: liquid
- Colour: brown
- Density (kg/l): 1.05
- pH-Value: 7.0
- max. alkali content (% Na₂O-eq): 4.0
- max. chloride content (%): 0.1
- Colour code: grey
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

Remarks

Before the use of Flowpower TM S300 con. 17% reservoirs and dosage systems have to be cleaned thoroughly.

Product description

Flowpower TM S340 con.25% represents the latest generation of concrete additives. Efficiency and working properties have especially been adapted for the ready-mixed concrete industry. Due to its well-balanced properties, the product can also be used in pre-cast plants. Depending on the cement used, considerable gain in consistencies and long-lasting, good workability can be obtained. Flowpower TM S340 con.25% offers the possibility to produce a ready-mixed concrete already holding the consistency required on site as it leaves the concrete plant while the product is suitable for all strength classes. Concrete produced with Flowpower TM S340 con.25% offers ideal processability and isn't "sticky", like other well-known high-performance superplasticisers.

Application

Flowpower TM S340 con.25% is an all-purpose product and suitable for all required concrete qualities. Even at a low water-cement ratio, good processability and compaction will be obtained. The product can be used in a combination with a plasticiser or as a superplasticiser and thus allows the producer of ready-mixed concrete to optimise warehouse capacities. Information on compatibility tests with Tillman's air entraining agents is available on request.

Dosage

- Min. dosage: 0.2% of the cement weight
- Max. dosage: 2.0% of the cement weight
- Method of adding and point of time: preferably added to the ready mix or with the last partial amount of mix water

Technical data

- State of aggregation: liquid
- Colour: brown
- Density (kg/l): 1.08
- pH-Value: 6.7
- max. alkali content (% Na₂O-eq): 4,0
- max. chloride content (%): 1,0
- Colour code: grey
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

Remarks

Before the use of Flowpower TM S340 con. 25% reservoirs and dosage systems have to be cleaned thoroughly.

Product description

Flowpower TM S350 con. 20% was especially developed for the use in ready-mixed concrete. Very high consistencies are obtained even at low dosages. Workability can be prolonged depending on the temperature, the cement type and the composition of the concrete. The water-cement ratio can be reduced considerably. Flowpower TM S350 con. 20% can be used for all kinds of concrete.

Application

Flowpower TM S350 con. 20% is used whenever high and long-lasting consistencies are desired. For this reason, Flowpower TM S350 con. 20% is especially suitable for the casting of industrial floors. The concrete produced is of an excellent workability and isn't 'sticky', which is a well-known fact for other high-performance super-plasticisers.

Dosage

- Min. dosage: 0.2% of the cement weight
- Max. dosage: 2.0% of the cement weight
- Method of adding and point of time: preferably added to the ready mix or with the last partial amount of mix water

Technical data

- State of aggregation: liquid
- Colour: brown
- Density (kg/l): 1.07
- pH-Value: 6.5
- max. alkali content (% Na₂O-eq):
- max. chloride content (%): 0.1
- Colour code: grey
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

Remarks

Before the use of Flowpower TM S350 con. 20% reservoirs and dosage systems have to be cleaned thoroughly.

Flowpower TM S351 con.30% (1376)
Flowpower TM S351 con.20% (1381)

Product description

Flowpower TM S351 was especially developed for the use in ready-mixed concrete. Very high consistencies are obtained even at low dosages. Depending on the temperature, the cement type and the composition of the concrete, the workability is prolonged more than with the use of Flowpower TM S350 con. 20%. The water-cement ratio can be reduced considerably. Flowpower TM S351 can be used for all kinds of concrete.

Application

Flowpower TM S351 is used whenever high and long-lasting consistencies are desired. For this reason, Flowpower TM S351 is especially suitable for the casting of industrial floors. The concrete produced is of an excellent workability and isn't 'sticky', which is a well-known fact for other high-performance superplasticisers.

Dosage

- Min. dosage: 0.2% of the cement weight
- Max. dosage: 2.0% of the cement weight
- Method of adding and point of time: preferably added to the ready mix or with the last partial amount of mix water

Technical data

20%	30%
State of aggregation:	
liquid	liquid
Colour:	
brown	brown
Density (kg/l):	
1.07	1,01
pH-Value:	
6.5	6,5
max. alkali content (% Na ₂ O eq):	
3,0	3.0
max. chloride content (%):	
0.1	0.1
Colour code:	
grey	grey
Storage: dry, frost-protected, in closed packaging	
Shelf-life: when stored correctly at least 1 year, after date of production.	

Packaging

Cans, barrels, containers, bulk.

Remarks

Before the use of Flowpower TM S351 con. 30% reservoirs and dosage systems have to be cleaned thoroughly.

Product description

Superplasticiser TM ON-S 2000 + O is a highly efficient product. Even with very low dosages, consistencies can be improved from C1 to F4 and higher. The superplasticiser is efficient for about 30-45 minutes, depending on the composition of the mix and the cement type. After the processing time a very fast strength development begins. Superplasticiser TM ON-S 2000 + O furthermore causes a reduction of the content of air voids and reduces the possible formation of foam on the concrete surface.

Application

Superplasticiser TM ON-S 2000 + O is used if the concrete is required to fulfil very high expectations regarding consistency, strength development and durability. The product is especially suitable for the production of liquid-tight concrete. An extremely fast strength development enables to reduce stripping times which results in the product's special suitability for the production of precast concrete units using easily compacted and self-compacting concrete.

Dosage

- Min. dosage: 0.2% of the cement weight
- Max. dosage: 2.0% of the cement weight
- Method of adding and point of time: preferably added to the ready mix or with the last portion of mix water

Technical data

- State of aggregation: liquid
- Colour: light brown
- Density (kg/l): 1.05
- pH-Value: 6
- max. alkali content (% Na₂O-eq):
- max. chloride content (%): 0.1
- Colour code: grey
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

Remarks

For the combined application of Superplasticiser TM ON-S 2000 + O and air-entraining agents, preliminary tests for suitability are indispensable. Dosing systems have to be able to process fluids of a viscosity of 1500 mPa.s.

Product description

Superplasticizer Powderflow 300 is a very efficient product. Even with very low dosages, consistency classes can be improved from C1 to F4 and higher. The superplasticizer is effective for about 60 minutes, depending on the composition of the mix and the cement type. After the processing time a fast strength development process begins.

Application

Superplasticizer Powderflow 300 is used if there are great expectations to be fulfilled regarding consistency, strength development and durability. The product is especially suitable for the production of screeds, which are produced from silos. Due to the very fast strength development it is possible to start next working steps earlier, which qualifies the product for the application in the self-levelling underlayments or selfcompacting concrete or screeds.

The product was developed for pumpable screeds and other quick mixing systems. Beside its very short solubility and product activation the product is described by its low rheological behaviour and the easy flowability.

Dosage

- Min. dosage (con.100%): 0.1% of the cement weight
- Max. dosage (con.100%): 1.0% of the cement weight
- Method of adding and point of time: preferably added to the dry mix or with the last partial amount of mix water.

Technical data

20%	100%
State of aggregation:	
liquid	powder
Colour:	
brown	brown
Density (kg/l):	
1.05	0.52
pH-Value:	
6.5	7.0
max. alkali content (% Na ₂ O eq):	
1.5	4.0
max. chloride content (%):	
0.1	0.1
Colour code:	
grey	grey
Storage: dry, frost-protected, in closed packaging	
Shelf-life: when stored correctly at least 1 year, after date of production.	

Packaging

Liquid: Cans, barrels, containers, bulk.

Powder: Sacks, pallets, big bags.

Remarks

Dosing systems have to be able to process fluids of a viscosity of 1500 mPa.s.

4.2 SUPERPLASTICISERS FOR MORTAR

Flowing Floor Admixture TM 79/37L (2003)
Flowing Floor Admixture TM 81/37 (2004)

Product description

Flowing Floor Admixture TM is a combination of high-quality components which ensure a good coherence of the mix and homogenous mixture of cement and aggregates. If applied properly, Flowing Floor Admixture TM can be used to produce mortar that doesn't segregate while bleeding is prevented as well, and additionally, the mortar will be self-levelling because of its excellent flow properties. Flowing Floor Admixture TM 79/37 L has a retarding effect whereas Flowing Floor Admixture TM 81/37 contains an accelerator which provides for sufficient compressive strength of the screed in a relatively short period of time, even when the temperatures are low.

Application

Flowing Floor Admixture TM is used for cement-bound screed, blinding layers, or if a sand-cement mix is needed as a self-levelling mass. The excellent coherence and density provide for an end-product of high density and homogeneity. Flowing Floor Admixture TM can also be added to improve the flow properties of foamed concrete.

Dosage

- Min. dosage: 2.0% of the cement weight
- Max. dosage: 4.0% of the cement weight
- Method of adding and point of time: preferably added directly after the mix water

Technical data

79/37L	81/37
State of aggregation:	
liquid	liquid
Colour:	
white	beige
Density (kg/l):	
1.03	1.30
pH-Value:	
7.0	7.0
max. alkali content (% Na ₂ O eq):	
n.a.	n.a.
max. chloride content (%):	
0.1	25.0
Colour code:	
n.a.	n.a.
Storage: dry, frost-protected, in closed packaging	
Shelf-life: when stored correctly at least 1 year, after date of production.	

Packaging

Cans, barrels, containers, bulk.

5.1 AIR-ENTRAINING AGENTS FOR CONCRETE

Air-entraining agent TM AEA-3 con. 8% (1401)
Air-entraining agent TM AEA-3 con. 3% (1405)
Air-entraining agent TM AEA-3 white (1413)
Air-entraining agent TM AEA-3 Concentrate (1414)

Product description

Air-entraining agent TM AEA-3 is a ready-to-use admixture used to entrain a predefined quantity of air pores in concrete. The product stimulates the generation of micro air pores, and ensures them to be of the right size and to be correctly distributed in the concrete. The artificially entrained air gives several favourable properties to concrete. Workability and coherence are increased. The ability to retain water is improved which diminishes bleeding and segregation. The resistance to frost-de-icing cycles is enhanced. The content of air pores in the concrete or mortar mix depends on the dosage of Air-entraining agent TM AEA-3, the content of fine particles, <0.250 mm, mixing intensity and consistency.

Application

Air-entraining agent TM AEA-3 is used:

- to manufacture concrete with a high resistance against frost and de-icing salt
- to produce concrete that is water-impervious
- to produce mortar. Air-entraining agent TM AEA-3 is mainly used in road construction, barrage dams, wastewater treatment plants.

Remarks

The effects of Air-entraining agent TM AEA-3 white are the same as of Air-entraining agent TM AEA-3, it is principally used with coloured mortar.

Dosage

- dosage (con. 3%): min. 0.05% - max. 1.0% of the cement weight
- dosage (con. 8%): min. 0.05% - max. 0.6% of the cement weight
- Method of adding and point of time: preferably added directly after the mix water

Technical data

8%	3%	White	Concentrate
State of aggregation:			
liquid	liquid	liquid	liquid
Colour:			
brown	brown	white	brown
Density (kg/l):			
1.03	1.00	1.01	n.a.
pH-Value:			
10.0	9.0	7.0	n.a.
max. alkali content (% Na ₂ O eq):			
1.5	1.5	n.a.	n.a.
max. chloride content (%):			
0.1	0.1	0.1	0.1
Colour code:			
bleu	bleu	bleu	bleu
Storage: dry, frost-protected, in closed packaging			
Shelf-life: when stored correctly at least 1 year after date of production.			

Packaging

Cans, barrels, containers, bulk.

Product description

Air-entraining plasticiser TM LPV is a ready-for-use admixture used to generate and thoroughly distribute micro air pores in the concrete. Air-entraining plasticiser TM LPV is a synthetic product containing a plasticising component and gives the following properties to concrete:

- micro air pores are generated and distributed to improve the frost-de-icing salt resistance
- reduction of water-cement ratio possible because of the plasticiser, improved concrete properties; without changing the water-cement ratio, improved consistency
- prevention of segregation during transport
- tendency of bleeding diminished

Application

Air-entraining plasticiser TM LPV is mainly used in road construction. It is also applicable for other kinds of concrete, e.g. environmental classes XD up to XF.

Dosage

- Min. dosage: 0.2% of the cement weight
- Max. dosage: 0.5% of the cement weight
- Method of adding and point of time: preferably added directly after the mix water

Technical data

- State of aggregation: liquid
- Colour: transparent
- Density (kg/l): 1.04
- pH-Value: 7.0
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): 0.1
- Colour code: bleu
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

Product description

Air-entraining retarder TM LPVZ-55 is a ready-for-use admixture that generates and distributes air pores in concrete and which has, moreover, a retarding effect on the cement hydration. There are three different aspects in the effect of Air-entraining retarder TM LPVZ-55:

- increase of the air pore content to improve frost-de-icing resistances
- enhanced workability because of the plasticising property
- retardation of setting to prolong the processing time

Application

Air-entraining retarder TM LPVZ-55 is primarily applied in road construction.

Dosage

- Min. dosage: 0.1% of the cement weight
- Max. dosage: 0.4% of the cement weight
- Method of adding and point of time: preferably added to the mix water; combined with Superplasticiser TM K3T-11+H, dosage shouldn't pass 0.04-0.2% of cement weight

Technical data

- State of aggregation: liquid
- Colour: brown
- Density (kg/l): 1.10
- pH-Value: 13.0
- max. alkali content (% Na_2O -eq): n.a.
- max. chloride content (%): 0.1
- Colour code: bleu
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

Air-entraining agent TM AEA-B
con.2%
(1411)

Air-entraining agent TM AEA-B
con.5%
(1412)

Product description

Air-entraining agent TM AEA-B is a highly efficient concrete admixture that generates and effectively distributes air pores in concrete. This has a positive influence on the concrete properties:

- increase of workability
- possible reduction of water content
- reduction of segregation and bleeding tendency
- increase of water-impermeability
- increase of frost-de-icing salt resistance

The generation and distribution of air pores also depends on circumstances like temperature of the fresh concrete, consistency, mixing time, content of finer particles and dosage.

Application

Air-entraining agent TM AEA-B is used for:

- concrete with high resistance of frost and de-icing salt
- concrete used for road construction
- airfields
- barrage dams
- wastewater treatment plants
- mass concrete

Dosage

- Min. dosage: 0.1% of the cement weight
- Max. dosage: 0.6% of the cement weight
- Method of adding and point of time: preferably added directly after the mix water

Technical data

5%	2%
State of aggregation:	
liquid	liquid
Colour:	
brown	brown
Density (kg/l):	
1.02	1.01
pH-Value:	
12,0	12,0
max. alkali content (% Na ₂ O eq):	
1.0	1.0
max. chloride content (%):	
0.1	0.1
Colour code:	
blue	blue
Storage: dry, frost-protected, in closed packaging	
Shelf-life: when stored correctly at least 1 year, after date of production.	

Packaging

Cans, barrels, containers, bulk.

Product description

Air-entraining agent TM 89/29 E is a ready-to-use concrete admixture that stimulates the generation of air pores in concrete. Air-entraining agent TM 89/29 E is the ideal admixture for concrete with absorbent contents. The air pores generated aren't too small, so this product can be added to concrete containing fly ash. Air-entraining agent TM 89/29 E significantly increases the coherence of the concrete, prevents bleeding and additionally enhances the frost and frost-thawing resistances of the hardened concrete. The content of air pores in the concrete mix depends on the dosage of Air-entraining agent TM 89/29 E, the content of fine particles <0.250 mm, the mixing process and consistency of the fresh concrete as well as the content of absorbing aggregates in the fresh concrete.

Application

Air-entraining agent TM 89/29 E is to be used for concrete that holds absorbent contents and for concrete containing fly ash.

Dosage

- Min. dosage: 0.01% of the cement weight
- Max. dosage: 1.0% of the cement weight
- Method of adding and point of time: preferably added directly after the mix water

Technical data

- State of aggregation: liquid
- Colour: colourless
- Density (kg/l): 1.0
- pH-Value: 7.0
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): 0.1
- Colour code: bleu
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

5.2 AIR-ENTRAINING AGENTS FOR MORTAR

MORTAR STABILISER TM FTB

Mortar stabiliser TM FTB con. 16% (2001)
 Mortar stabiliser TM FTB con. 3% (2015)
 Mortar stabiliser TM FTB (powder) (2133)

Product description

Mortar stabiliser TM FTB con. 16% (LP) is a highly concentrated admixture used to evenly distribute air pores in mortar. Mortar stabiliser TM FTB con. 3% (LP) is a product of lower concentration which simplifies the dosage. After being thoroughly mixed with cement, sand and water, Mortar stabiliser TM FTB causes the generation and even distribution of air pores. Enriching mortar with air pores creates several favourable conditions:

- improved workability and coherence of the mortar mix
- enhanced binding of water
- increased frost resistance of the (hardened) mortar

The desired content of air pores can be obtained if the following decisive factors are observed:

- the dosage of Mortar stabiliser TM FTB
- the mixing process
- the water-cement ratio
- the grain size distribution of the sand

Application

Mortar stabiliser TM FTB can be added to many different kinds of mortar, as for example masonry mortar, stucco, grout, factory and joint mortar.

Remarks

Mortar stabiliser TM FTB can be used in combination with Mortar retarder TM FT (Art. No. 2002).

Dosage

- Min. dosage (con.16%): 0.05% of the cement weight
- Max. dosage (con.16%): 1.0% of the cement weight
- Method of adding and point of time: preferably added directly after the mix water

Technical data

16%	3%	powder
State of aggregation:		
liquid	liquid	powder
Colour:		
brown	brown	brown
Density (kg/l):		
1.05	1.03	0.9
pH-Value:		
10.0	10.0	10.0
max. alkali content (% Na ₂ O eq):		
8.5	8.5	8.5
max. chloride content (%):		
0.1	0.1	0.1
Colour code:		
bleu	bleu	bleu
Storage: dry, frost-protected, in closed packaging		
Shelf-life: when stored correctly at least 1 year, after date of production.		

Packaging

Liquid: Cans, barrels, containers, bulk.

Powder: Sacks, pallets, big bags.

MORTAR STABILISER TM 81/36

Product description

Mortar Stabiliser TM 81/36 is an admixture that stimulates a considerable increase of the air content in masonry mortar after being thoroughly mixed with cement, sand and water. This improves workability and coherence of the mortar. The product doesn't have negative effects on coloured mortar. The content of air pores generated by this product, similar to Mortar Stabiliser TM FTB (Art. No. 2001), depends on the dosage, the mixing process, the water-cement ratio and the particle size distribution of the sand.

Application

Mortar Stabiliser TM 81/36 is used to manufacture masonry mortar, stucco, grout and also joint mortar for which intensive colouring is important.

Dosage

- Min. dosage: 0.01% of the cement weight
- Max. dosage: 0.2% of the cement weight
- Method of adding and point of time: preferably added directly after the mix water

Technical data

- State of aggregation: liquid
- Colour: colourless
- Density (kg/l): 1.03
- pH-Value: 7.0
- max. alkali content (% Na_2O -eq): n.a.
- max. chloride content (%): n.a.
- Colour code: bleu
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

Product description

Foaming promoter concentrate TM 3 contains highly plasticising properties and is an admixture for mortar which entrains and distributes micro air pores during the mixing process. The fine, thoroughly distributed micro air pores stabilise the mortar and diminish the tendency to segregate or bleed. The water content of the mix can be reduced because of its plasticising property. A sufficient mixing time has to be observed.

Application

Foaming promoter concentrate TM 3 is used for the production of masonry mortar which can then be applied for concrete blocks and walls in- and out-doors.

Dosage

- Min. dosage: 0.05% of the cement weight
- Max. dosage: 0.15% of the cement weight
- Method of adding and point of time: preferably added directly after the mix water

Technical data

- State of aggregation: liquid
- Colour: brown
- Density (kg/l): 1.05
- pH-Value: 10.0
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: bleu
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

PLASTERING AGENT TM

Product description

Plastering agent TM is an admixture specially designed to prevent bleeding and segregation of plaster and masonry mortar. The product's plasticising property allows to reduce the amount of mix water. Moreover, material shrinkage is reduced and it will be easier to apply finishing coats.

Application

Plastering agent TM is added to plaster and masonry mortar.

Dosage

- Min. dosage: 0.1% of the cement weight
- Max. dosage: n.a.
- Method of adding and point of time: preferably added directly after the mix water.

Technical data

- State of aggregation: liquid
- Colour: colourless
- Density (kg/l): 1.01
- pH-Value: 5.0
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

5.3 FOAMING AGENTS

AIRCEL TM

Product description

Aircel TM is a protein-based product, which is used to produce a very stable foam in a foam generator. The foam cells generated will be of a size between 0.2-0.8 mm.

Aircel TM is used if the foamed concrete is to be self-levelling. Moreover, Aircel TM ensures that the foamed concrete exhibits high stability and good workability.

Application

With Aircel TM, old and decommissioned pipe systems or storage tanks can be filled up, insulating layers can be cast for floors in industrial or housing construction, foamed concrete precast elements can be produced, and so on.

User instructions

A solution is made containing 3-4% of Aircel TM. Using a foam generator, this solution is taken to generate a stable foam which is then mixed with the base mortar or cement paste in a rotary drum or compulsory mixer to produce foamed concrete. For mixing the base mortar, CEM-III cement as well as CEM-I cement can be used. It is strongly recommended not to use fly ash, as remaining carbon particles can destroy the foam cells. Decrease in foam cells will result in a loss in volume of the foamed concrete. Depending on the quantity of foam added to the base mortar or cement paste, the density of the fresh concrete will differ. Density can be measured directly after producing the foamed concrete. There might be differences in weight between the fresh and hardened concrete of about 50 kg/m³. Additionally, Flowing Floor Admixture TM 79/7 L (Art. No. 2003) or Flowing Floor Admixture TM 81/37 (Art. No. 2004) can be added to the base mortar.

Consumption

For every m³ of foamed concrete 1 kg Aircel TM is required.

Technical data

- State of aggregation: liquid
- Colour: brown
- Density (kg/l): 1.05
- pH-Value: 7.0
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): 0.1
- Colour code: bleu
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

Remarks

Aircel TM should not be used to fill service cavities under ground floors due to possible smells.

FOAMING AGENT TM 80/23

Product description

Foaming agent TM 80/23 is a synthetic product that is used to produce a very stable foam with a foam generator. The foam cells will have a diameter of 0.2 mm to 0.8 mm. With Foaming agent TM 80/23, foam concrete is produced that is not self-levelling.

Application

Foaming agent TM 80/23 is applied if cavities have to be filled up, for the production of insulating layers and whenever foamed concrete doesn't have to be self-levelling, as is for example the case with inclined planes.

User instructions

A solution is made, containing 3-4% of Foaming agent TM 80/23. This mixture is transformed into a stable foam with a foam generator. The foam created is added to the base mortar or to the cement paste, both are thoroughly mixed in a rotary-drum or compulsory mixer to produce foamed concrete. The base mortar can be produced with CEM-III or CEM-I cement types. As possible remains of carbon particles might destroy the foam cells, it is recommended not to use fly ash for the base mortar. A destruction of foam cells would result in a loss of volume. The density of the foamed concrete can be measured directly after its production. The density depends on the added quantity of foam and it can be up to 50 kg/m³ higher than that of the hardened concrete. Flowing Floor Admixture TM 81/37 (Art. No. 2004) can be added to the base mortar to increase flowability and to speed up the hardening process. Whereas Flowing Floor Admixture TM 79/37 L (Art. No. 2003) is added to obtain self-levelling concrete. To improve the workability of the foamed concrete, Aircel TM (Art. No. 1407) can be used in combination with Foaming agent TM 80/23.

Consumption

For every m³ of foamed concrete 1 kg Foaming agent TM 80/23 is required.

Technical data

- State of aggregation: liquid
- Colour: colourless
- Density (kg/l): 1.06
- pH-Value: 8.0
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): 0.1
- Colour code: bleu
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

FOAMING AGENT TM M1

Product description

Foaming agent TM M1 is a product based on proteins. It is used to produce a very stable foam containing foam cells of a size between 0.2 mm and 0.8 mm. If a foamed concrete is to be produced which is not required to be self-levelling, Foaming agent TM M1 is the ideal admixture. Moreover, the foamed concrete will be very stable and highly plastic.

Application

Foamed concrete enhanced with Foaming agent TM M1 can be used to fill up old piping systems or storage tanks, to cast insulating layers in housing construction, to cast industrial floors, to manufacture foamed-concrete elements, and so on.

User instructions

A solution is made, containing 3-4% of Foaming agent TM M1. This mixture is now taken to produce a stable foam with a foam generator. In a rotary-drum mixer or compulsory mixer, this foam is mixed with the cement paste or the base mortar to produce foamed concrete. To produce the base mortar, CEM-III cement as well as CEM-I cement can be used. Further should the base mortar not contain any fly ash, as remaining carbon particles might destroy the foam cells. Destruction of foam cells inevitably leads to a loss in volume. Depending on the added quantity of foam, the foamed concrete will exhibit different densities.



Compared with the fresh concrete, the hardened concrete may undergo a reduction in weight of up to 50 kg per m³. If improved workability is requested, Foaming agent TM M1 can be used in a combination with Aircel TM (Art. No. 1407). Other admixtures that can be combined with Foaming agent TM M1 are Flowing Floor Agent TM 79/37 L (Art. No. 2003) and Flowing Floor Agent TM 81/37 (Art. No. 2004). To improve the workability of the foamed concrete, Aircel TM (Art. No. 1407) can be used in combination with Foaming agent TM M1.

Consumption

For every m³ of foamed concrete 1 kg Foaming agent TM M1 is required.

Technical data

- State of aggregation: liquid
- Colour: brown
- Density (kg/l): 1.05
- pH-Value: 7.0
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): 0.1
- Colour code: bleu
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

Remarks

Foaming agent TM M1 should not be used in small cavities, as the proteins omit smells.

6.1 CONCRETE SEALANTS

CONCRETE SEALANT TM DM

Concrete sealant TM DM (1501)
Concrete sealant TM DM Powder (1505)

Product description

Concrete sealant TM DM is a ready-to-use concrete admixture which substantially increases the (water) tightness of concrete. This product's plasticising property allows to reduce the water-cement ratio which results in a more compact cement structure. Furthermore, Concrete sealant TM DM contains hydrophobic substances which make the capillaries in the concrete water-repellent.

Application

Concrete sealant TM DM is used:

- for the production of water impermeable concrete
- to manufacture concrete with a high frost and frost-de-icing salt resistance
- to produce concrete that is highly resistant against chemical attacks

The best results for this product are obtained with blast-furnace cement. Concrete sealant TM DM increases the pumpability of concrete and doesn't contain saponifiable substances.

Dosage

- Min. dosage: 0.5% of the cement weight
- Max. dosage: 1.0% of the cement weight
- Method of adding and point of time: preferably added directly after the mix water

Technical data

- State of aggregation: liquid
- Colour: brown
- Density (kg/l): 1.07
- pH: 4.0
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): 0.1
- Colour code: brown
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Liquid: Cans, barrels, containers, bulk.

Powder: Sacks, pallets, big bags.

Remarks

Concrete sealant TM DM is also available in powder form. Dosage is the same for liquid and powder. In case of an accidental overdose, the hardening process will be retarded.



Product description

Concrete sealant TM hydrophobic is a ready-to-use admixture for concrete. It contains substances which bind the free lime that is generated during the cement hydration. This process caused by Concrete sealant TM hydrophobic, generates insoluble, water-repellent salts which are resistant of ultraviolet rays. This leads to a near-to-infinite tightness and works as a protection against aggressive environmental conditions. Finally, the product holds highly plasticising properties which allows to reduce the water-cement ratio.

Application

Concrete sealant TM hydrophobic is applied:

- for the production of water-impermeable concrete
- to produce concrete with a high resistance against frost and de-icing salts
- to produce concrete with a high resistance of aggressive chemicals

As the concrete produced with Concrete sealant TM hydrophobic is more compact, it is possible to manufacture slender but highly-reinforced concrete elements. Concrete sealant TM hydrophobic also makes pumping of concrete easier.

Dosage

- Min. dosage: 0.2% of the cement weight
- Max. dosage: 0.8% of the cement weight
- Method of adding and point of time: preferably added directly after the mix water, do not add to dry mix

Technical data

- State of aggregation: liquid
- Colour: white
- Density (kg/l): 1.01
- pH-Value: 9.0
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): 0.1
- Colour code: brown
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 6 months after date of production

Packaging

Cans, barrels, containers, bulk.

Remarks

Accidental overdosing might prolong setting times. When producing water-impermeable concrete with Concrete Sealant TM hydrophobic, valid regulations are to be observed.

PLASTUATE TM

Product description

Plastuate TM is a concrete plasticiser with several effects. It contains a water-reducing component which ensures constant workability while the water-cement ratio can be lowered. Further it contains water-soluble fluoate compounds that bind some of the free lime generated during cement hydration. These lime particles are transformed into non-soluble fluorine compounds. These processes result in a notably improved chemical resistance of the hardened concrete, as the calcium fluoate formed is by far more resistant to aggressive influences than the free lime. Additionally, the formation of bio-organisms on concrete surfaces is prevented.

Application

Plastuate TM is used to improve concrete properties if high chemical resistance is requested.

Dosage

- Min. dosage: 0.3% of the cement weight
- Max. dosage: 1.0% of the cement weight
- Method of adding and point of time: preferably added to the mix water or else together with the aggregates

Technical data

- State of aggregation: liquid
- Colour: brown
- Density (kg/l): 1.13
- pH-Value: 1.0
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): 0.1
- Colour code: yellow
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

Remarks

Plastuate TM contains fluates which attack and destroy glass. When using this product, wear protective goggles and gloves.

ACRYTEKT TM XE

Product description

Acrytekt TM XE is a ready-to-use concrete admixture. Special components in this product considerably increase the tightness of concrete and improve the elastic modulus. Moreover, these components provide for a better chemical resistance, so this product is perfectly suitable for concrete in aggressive environments. Finally, Acrytekt TM XE increases the homogeneity of the concrete mix.

Application

Acrytekt TM XE is used for the production of:

- impermeable or liquid-tight concrete
- concrete with a high resistance of de-icing salts
- concrete in aggressive environments

Acrytekt TM XE can be used in combination with other Tillman products, for example plasticisers. Dosage is to be executed separately.

Dosage

- Min. dosage: 1.0% of the cement weight
- Max. dosage: 3.0% of the cement weight
- Method of adding and point of time: preferably add to the mix water

Technical data

- State of aggregation: liquid
- Colour: white
- Density (kg/l): 1.03
- pH-Value: 8.0
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): 0.1
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 6 months after date of production

Packaging

Cans, barrels, containers, bulk.

Product description

Hydrophobing powder TM 86/12 is a ready-to-use powder admixture. Its special components bind the free lime generated during cement hydration. The salts generated in this process are insoluble and water-repellent. Hydrophobing powder TM 86/12 substantially increases the tightness of concrete, masonry mortar, joint mortar and similar products.

Application

Hydrophobing powder TM 86/12 is perfectly suitable to make dry mortar, masonry mortar and joint mortar water-repellent. TM 86/12 considerably diminishes lime efflorescence. By adding Hydrophobing powder TM 86/12, humidity will be prevented from permeating as far as possible.

Dosage

- Min. dosage: 0.2% of the cement weight
- Max. dosage: 2.0% of the cement weight
- Method of adding and point of time: preferably added to the dry aggregates

Technical data

- State of aggregation: powder
- Colour: grey
- Density (kg/l): n.a.
- pH-Value: n.a.
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: grey
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 6 months after date of production

Packaging

Sacks, pallets, big bags.



CHEMSEAL TM T5

Product description

Chemseal TM T5 is a liquid admixture on the basis of polymers. The substances contained react with the calcium compounds generated during cement hydration, resulting in the formation of insoluble salts. Due to this process, the capillaries in the concrete are water-repellent (hydrophobic). Chemseal TM T5 notably increases the tightness of concrete. This high tightness is a good protection against aggressive environmental influences. The plasticising property of Chemseal TM T5 allows to reduce the water-cement ratio which increases the properties of the concrete. The product exhibits the same workability even when used at higher temperatures and, more importantly, there won't be remains of the product in metering systems or in the piping after usage.

Application

Chemseal TM T5 is used:

- for the production of water-impermeable concrete or tight concrete
- to produce concrete with a high resistance to frost and de-icing agents
- to produce concrete suitable for aggressive environments
- for the production of slender concrete elements

Dosage

- Min. dosage: 1.0% of the cement weight
- Max. dosage: 6.0% of the cement weight
- Method of adding and point of time: preferably added directly after the mix water, do not add to dry mix

Technical data

- State of aggregation: liquid
- Colour: white
- Density (kg/l): 1.03
- pH-Value: 13.0
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 6 months after date of production

Packaging

Cans, barrels, containers, bulk.

Product description

Concrete sealant TM II (hydrophobic) is a ready-to-use sealing agent for concrete. The substances it contains react with the calcium compounds generated during cement hydration. The insoluble compounds generated by this reaction are hydrophobic, i.e. water-repellent. These water-repellent compounds, generated because Concrete sealant TM II (hydrophobic) was added to the mix, are resistant to ultraviolet rays which results in a long-lasting sealing effect. This notable tightness offers, moreover, a good protection against aggressive environmental influences. Furthermore, the product holds a strongly plasticising property that allows to reduce the water-cement ratio.

Application

Concrete sealant TM II (hydrophobic) is applied:

- to produce water-tight concrete
- to produce concrete with a high resistance of frost and de-icing salt
- for the production of concrete suitable for aggressive environments

Due to the increase in tightness caused by Concrete sealant TM II (hydrophobic), this product is perfectly suitable for the production of slender concrete elements. Concrete sealant TM II (hydrophobic) facilitates pumping of fresh concrete.

Dosage

- Min. dosage: 0.2% of the cement weight
- Max. dosage: 0.8% of the cement weight
- Method of adding and point of time: preferably added directly after the mix water, do not add to dry mix

Technical data

- State of aggregation: liquid
- Colour: white
- Density (kg/l): 1.03
- pH-Value: 10.0
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): 0.1
- Colour code: brown
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 6 months after date of production

Packaging

Cans, barrels, containers, bulk.

6.2 MORTAR SEALANTS

MORTAR SEALANT TM 76/139

Product description

Mortar sealant TM 76/139 is a ready-to-use admixture for mortar containing substances that bind the free lime which is generated during cement hydration. The insoluble salts created in this process are water-repellent. Thus, the mortar is made hydrophobic from the inside. Mortar sealant TM 76/139 substantially increases the tightness of mortar.

Application

Mortar sealant TM 76/139 is particularly suitable to make different types of mortar water-repellent. Mortar sealant TM 76/139 diminishes lime efflorescence. Impermeability is improved considerably by Mortar sealant TM 76/139, so that intrusion and absorption of humidity can be largely reduced.

Dosage

- Min. dosage: 0.1% of the cement weight
- Max. dosage: 2.0% of the cement weight
- Method of adding and point of time: preferably added directly after the mix water

Technical data

- State of aggregation: liquid
- Colour: colourless
- Density (kg/l): 1.0
- pH-Value: 8.0
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): 0.1
- Colour code: brown
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

SEALING AGENT TM

Product description

Sealing agent TM is a ready-to-use admixture which is added to mortar to make it watertight. Due to the product's plasticising property, the water-cement ratio can be lowered, thus a more compact cement structure is obtained. The hydrophobic substances contained in the product prevent water from intruding into the capillaries of the masonry mortar.

Application

Sealing agent TM is used:

- to produce water-impermeable walls
- for the production of mortar that is highly resistant to frost and de-icing agents
- to produce masonry mortar suitable for aggressive environments

Dosage

- Min. dosage: 0.5% of the cement weight
- Max. dosage: 2.0% of the cement weight
- Method of adding and point of time: preferably added directly after the mix water

Technical data

- State of aggregation: liquid
- Colour: white
- Density (kg/l): 1.01
- pH-Value: 10.0
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): 0.1
- Colour code: brown
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

7.1 FORMWORK RELEASE AGENTS

FORMWORK RELEASE TM

Product description

Formwork release TM is a solvent-free product that can be applied on wooden and steel formwork. The product doesn't contain any saponifiable contents. The appearance of concrete surfaces is improved and the service life of the formwork is prolonged.

Application

Formwork release TM is highly suitable for wooden and steel formwork.

User instructions

Formwork release TM is thin and evenly sprayed on the formwork, preferably with a broad nozzle. Formwork release TM can alternatively be applied with a big brush or a roll. The oil shouldn't be used too excessively and there shouldn't be any spill-overs on horizontal surfaces or in angles.

Coverage

1 Litre Formwork release TM is sufficient for about 30-40 m².

Technical data

- State of aggregation: liquid
- Colour: colourless
- Density (kg/l): 0.83
- pH-Value: n.a.
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

Remarks

Formwork release TM is not to be used on rubber forms.

Product description

Formwork releasing oil TM contains emulsifying agents. It is mixed with water before the application. The product prevents the adhesion of concrete on wooden formwork. The product doesn't contain any saponifiable contents. The appearance of the concrete surface is enhanced. The application of Formwork releasing oil TM will have a positive, enduring effect on the formwork, i.e. it can be seen as a part of the maintenance work.

Application

Formwork releasing oil TM is to be used for wooden formwork exclusively.

User instructions

1 Part of Formwork releasing oil TM is mixed with 20-30 parts of water. Always add the water to the oil, not vice versa. The emulsion resulting from this can then be applied on the formwork by using a spraying-device, a big brush or a roll.

Coverage

1 Litre Formwork releasing oil TM is sufficient for about 30 m² of formwork surface.

Technical data

- State of aggregation: liquid
- Colour: green
- Density (kg/l): 0.93
- pH-Value: n.a.
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 6 months after date of production

Packaging

Cans, barrels, containers, bulk.

Remarks

Formwork releasing oil TM is not suitable for steel formwork. For new wooden formwork, the emulsion should be mixed in a relation of 10 parts of water to 1 part of Formwork releasing oil TM.

Product description

Formwork releasing oil TM C-01 is a physical release agent which consists of high-quality basic materials. The product doesn't contain saponifiable ingredients and is completely free of solvents. Formwork releasing oil TM C-01 is a ready-for-use product, but can be emulsified with water if desired.

Application

Formwork releasing oil TM C-01 is especially suitable if the formwork is to be removed immediately. It can be used for steel and wooden formwork; the prepared emulsion is only suitable for wooden formwork. Excellent results are obtained if the product is used for the production of stones on wooden slabs.

User instructions

Formwork releasing oil TM C-01 can be applied purely or in its emulsified state. The product can be diluted by adding 5 – 10 parts of water; mix thoroughly. If the product is used when not diluted, it is thinly and evenly applied on the surface of the formwork using a spraying device.

Coverage

Consumption is about 1 litre for 10 to 40 m² of formwork surfaces depending on the degree of dilution.

Technical data

- State of aggregation: liquid
- Colour: colourless, transparent
- Density (kg/l): 0.88
- pH-Value: 6,5
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

FORMWORK OIL TM

Product description

Formwork oil TM is a biodegradable release agent preventing the adhesion of concrete on steel and coated wooden formwork. The product is to be applied in an extremely thin layer. It can remain on the formwork for a long time without drying excessively. Formwork oil TM enables clean and fast removal of the formwork and prevents the generation of stains on the surfaces as well as "sanding". If applied thin and evenly, there won't be any problems when future layers have to be applied, e.g. plaster, paint, tiles. Formwork oil TM is completely decomposed after approximately 4 weeks.

Application

Formwork oil TM can be used for steel formwork and coated wooden formwork.

User instructions

Formwork oil TM is applied on the formwork with a spraying device or with a piece of thin cloth. Spill-overs of the oil in edges and recesses of horizontal surfaces are to be avoided. Exceeding oil is to be removed with a piece of cloth.

Coverage

N.a.

Technical data

- State of aggregation: liquid
- Colour: yellow
- Density (kg/l): 0.86
- pH-Value: n.a.
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

FORMWORK OIL TM M

Product description

Formwork oil TM M is a biodegradable, physical form release agent. It doesn't contain saponifiable or wax-like substances. Formwork oil TM M causes a formidable release effect between concrete and formwork.

Application

Formwork oil TM M is perfectly suitable for steel, wooden and plastic formwork.

User instructions

Formwork oil TM M is applied thin and evenly with a spraying device, preferably with a broad sprayer nozzle. Alternatively, the product can be applied with a big brush or roll. Exceeding oil is to be removed from edges and recesses.

Coverage

Don't apply too excessively. 1 Litre is sufficient for about 30-40 m².

Technical data

- State of aggregation: liquid
- Colour: yellow
- Density (kg/l): 0.83
- pH-Value: 6.0
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

Remarks

Formwork oil TM M is not suitable for rubber-lined formwork.

FORMWORK OIL TM SPECIAL

Product description

Formwork oil TM special prevents the adhesion of concrete on formwork. Special components in this product allow its application on slightly wet surfaces. Formwork oil TM special has the same effect as Formwork oil TM. The product is to be applied in an extremely thin layer. It can remain on the formwork for a long time without drying excessively. Formwork oil TM special enables good and clean removal of the formwork and prevents the generation of stains on the surfaces as well as "sanding". If applied thin and evenly, there won't be any problems when future layers have to be applied, e.g. plaster, paint, tiles. Formwork releasing oil TM is biodegradable and will be completely decomposed after approximately 4 weeks.

Application

Formwork oil TM special can be used for steel and wooden formwork.

User instructions

The wet or dry formwork is coated with a thin layer of Formwork oil TM special, using a brush, cloth or spraying device. Excessive application is to be avoided. It has to be observed that, for horizontal surfaces, no spill-overs remain in edges or recesses. Any spill-overs are to be cleaned up before the casting.

Coverage

Applied with a spraying device 1 litre will be sufficient for 30-40 m² of formwork surfaces.

Technical data

- State of aggregation: liquid
- Colour: yellow
- Density (kg/l): 0.88
- pH-Value: n.a.
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

RELEASE AGENT TM

Product description

Release agent TM has the same properties as Formwork oil TM. Additionally, Release agent TM can also be applied on wet formwork, as moisture existent on the formwork is thrust aside/squeezed out. Thus, no water or air bubbles remain and a smooth concrete surface is obtained. Release Agent TM is solvent-free.

Application

Release agent TM can be applied on wooden, steel and plastic formwork.

Coverage

Applied with a spraying device 1 litre will be sufficient for 30-40 m² of formwork surfaces.

Technical data

- State of aggregation: liquid
- Colour: yellow
- Density (kg/l): 0.83
- pH-Value: n.a.
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

Remarks

Release agent TM is not suitable for rubber-lined or rubber formwork.

PRESERVATION AGENT TM

Product description

Preservation agent TM is a liquid product to conserve and protect steel formwork. After being sprayed onto the formwork, the dried film effectively prevents further generation of rust and acts as a protection from other environmental influences.

User instructions

Preservation agent TM is applied on the clean and dry surface by spraying or by roller. After the preservative agent has dried, apply a second time. The surfaces treated are protected for a minimum of 2 months. Before the formwork is used again it should be cleaned with warm water and soap suds or by steam jet cleaner. After cleaning, treat the surfaces with a common formwork oil.

Coverage

1 Litre Preservation agent TM is sufficient to treat 6-8 m² of surfaces.

Technical data

- State of aggregation: liquid
- Colour: white
- Density (kg/l): 0.95
- pH-Value: 4.0
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 6 months after date of production

Packaging

Cans, barrels, containers, bulk.

Remarks

After usage, clean the spraying devices with warm water and soap suds.

FORMWORK REMOVAL OIL TM

Product description

Formwork removal oil TM prevents the concrete from sticking to the formwork. The product ensures clean formwork removal, even if it is stored in between. The costs for the cleaning of the formwork are reduced. Formwork removal oil prevents the concrete surfaces from sanding. If this product is applied in a thin and even layer, additional layers, i.e. bonding bridges, plaster or roughcast, can be applied without difficulties.

Application

Formwork removal oil TM is used to lubricate steel and plastic formwork and coated wooden formwork.

Coverage

Applied with a spraying device, approximately 1 litre will be sufficient for 30-40 m² of formwork surfaces.

Technical data

- State of aggregation: liquid
- Colour: yellow
- Density (kg/l): 0.86
- pH-Value: n.a.
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

Remarks

Formwork removal oil TM is not suitable for rubber-lined or rubber formwork.

Product description

Formwork oil TM 76/109 prevents concrete from sticking to the formwork material. The product doesn't contain saponifiable substances and ensures removal of formwork that is free of residues, thus the costs for the cleaning of the formwork can be reduced. Thin and evenly applied, future layers can be applied without problems.

Application

Formwork oil TM 76/109 doesn't contain mineral oils and therefore is perfectly suitable for rubber formwork.

Coverage

Applied with a spraying device, approximately 1 litre will be sufficient for 30-40 m² of formwork surfaces.

Technical data

- State of aggregation: liquid
- Colour: yellow
- Density (kg/l): 0.84
- pH-Value: n.a.
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

FORMWORK OIL TM 89/17

Product description

Formwork oil TM 89/17 excellently prevents concrete from sticking to the formwork. Special components in this product guarantee its ideal effects. If used correctly, stainless and nonporous, as well as very smooth, surfaces are obtained that can be designated fair faced concrete surfaces. Moreover, Formwork oil TM 89/17 prevents wooden formwork from absorbing water, even if there is an interim before the formwork is used again. Formwork oil TM 89/17 prevents sanding of concrete surfaces. For steel formwork, its corrosion-inhibiting contents prevent rust generation. Finally, cleaning of the formwork won't take as long as it used to. Thin and evenly applied, application of additional layers, as for example bonding bridges, paint, tiles and so on, can be executed without any problems.

Application

Formwork oil TM 89/17 can be used for steel, plastic and wooden formwork. It can also be applied if the formwork is wet.

User instructions

Formwork oil TM 89/17 is evenly applied with a spraying device. Application can also be done with a big brush or roller, if surpluses are wiped with a clean piece of cloth. Prevent excessive application and observe to wipe off spill-overs from horizontal surfaces, edges and recesses.

Coverage

Depending on the kind of formwork, 1 litre is sufficient for approximately 20-30 m².

Technical data

- State of aggregation: liquid
- Colour: yellow
- Density (kg/l): 0.81
- pH-Value: n.a.
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

Remarks

Provide for good ventilation, no open flames.

FORMWORK OIL TM J

Product description

Formwork oil TM J is an extremely thin oil and therefore is perfectly suitable for the production of concrete elements with smooth, almost nonporous surfaces. It is an excellent formwork oil for the manufacture of high-quality fair faced concrete surfaces which have to meet high expectations.

Application

Formwork oil TM J can be used for wooden, plastic and steel formwork.

User instructions

Formwork oil TM J is thin and evenly applied with a spraying device.

Coverage

1 litre of Formwork oil TM J is sufficient to cover about 30 m² of formwork surfaces.

Technical data

- State of aggregation: liquid
- Colour: yellow
- Density (kg/l): 0.85
- pH-Value: n.a.
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

Remarks

Formwork oil TM J is not suitable for rubber-lined or rubber formwork.

FORMWORK OIL TM 88/7

Product description

Formwork oil TM 88/7 is perfectly suitable for direct formwork removal of concrete parts due to its special components. The formwork will be almost free of residues, if Formwork oil TM 88/7 is used. So the cleaning of the formwork will be remarkably less time-consuming. By using this formwork oil, possible interim periods may be prolonged.

Application

Formwork oil TM 88/7 can be used for all kinds of formwork.

User instructions

Formwork oil TM 88/7 is thin and evenly applied with a spraying device.

Coverage

1 litre is sufficient to cover about 30-40 m² of formwork surfaces.

Technical data

- State of aggregation: liquid
- Colour: yellow
- Density (kg/l): 0.79
- pH-Value: n.a.
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

Remarks

Provide for good ventilation, no open flames.

MOULDING OIL TM 88/7 G

Product description

Moulding oil TM 88/7 G is especially suitable for immediate formwork removal of precast concrete units due to its special ingredients. The formwork remains virtually without any residues, thus only little effort is required for cleaning the formwork. Even excessive application doesn't have any negative consequences on the products.

Application

Moulding oil TM 88/7 G can be used for all kinds of formwork. The product is especially suitable for strongly structured formwork and for formwork slabs which are scrubbed mechanically.

User instructions

Moulding oil TM 88/7 G is thin and evenly applied using a spraying device. Provide for good ventilation. No open flames.

Coverage

1 litre is sufficient to cover about 30-40 m² of formwork surfaces.

Technical data

- State of aggregation: liquid
- Colour: yellow
- Density (kg/l): 0.82
- pH-Value: 6,0
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

Remarks

Provide for good ventilation, no open flames.

FORMWORK OIL TM 89/3

Product description

Formwork oil TM 89/3 physical-chemical release agent. Thin and evenly applied, this oil provides for an excellent release effect, even if it is used for low-alkaline concrete.

Application

Formwork oil TM 89/3 can be applied to steel, wooden and plastic formwork.

Coverage

Applied thinly by spraying device, 1 litre will be sufficient for about 30 m² of formwork surfaces.

Technical data

- State of aggregation: liquid
- Colour: yellow-brown
- Density (kg/l): 0.81
- pH-Value: n.a.
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

Remarks

Formwork oil TM 89/3 is not suitable for rubber-lined or rubber formwork. Care for good ventilation and prevent open flames.

UNIOIL TM 204

Product description

Unioil TM 204 prevents concrete from sticking to formwork. Unioil TM 204 is a release oil. It doesn't contain saponifiable or wax-like contents and is solvent-free. Unioil TM 204 provides an excellent release effect of concrete and formwork. If applied correctly, the generation of stains can be avoided. Unioil TM 204 is primarily used in the production of precast concrete parts of which the formwork is to be immediately removed. Cleaning the formwork will become less expensive.

Application

Unioil TM 204 is applied to steel, wooden and plastic formwork.

User instructions

Unioil TM 204 is thin and evenly sprayed on the formwork with a broad nozzle. The layer of Unioil TM 204 shouldn't be too thick and there shouldn't be spill-overs on horizontal surfaces, in edges and recesses.

Coverage

1 litre Unioil TM 204 is sufficient for about ca. 20-30 m² surfaces.

Technical data

- State of aggregation: liquid
- Colour: yellow
- Density (kg/l): 0.82
- pH-Value: n.a.
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

Remarks

Unioil TM 204 is not to be used on rubber-coated or rubber formwork.

UNIOIL TM 205

Product description

Unioil TM 205 is a physical release agent which prevents concrete from sticking to the formwork. It doesn't contain saponifiable or wax-like substances and is solvent-free. Unioil TM 205 provides for clean and easy removal of formwork. Therefore, there is no sanding or staining of concrete surfaces if the product is used correctly. Unioil TM 205 can be applied if there is no immediate removal of formwork requested, or if there is an interim between castings. Expenses for cleaning the formwork can be reduced substantially. If the product is applied thin and evenly, application and adhesion of further layers, such as bonding bridges, plaster, tiles, can be executed without problems.

Application

Unioil TM 205 is used for steel and plastic formwork as well as for plastic-coated wooden formwork.

User instructions

Unioil TM 205 is thin and evenly applied by spraying device with a broad nozzle. There should be no accumulations of oil on horizontal surfaces, in edges and recesses.

Coverage

1 Litre is sufficient for about 30-40 m² surfaces.

Technical data

- State of aggregation: liquid
- Colour: yellow
- Density (kg/l): 0.82
- pH-Value: n.a.
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

Remarks

Unioil TM 205 is not suitable for rubber or rubber-coated formwork.

UNIOIL TM 200

Product description

Unioil TM 200 is a solvent-free, chemical formwork oil which can be applied to many kinds of formwork. It exhibits an excellent release effect and is free of saponifiable components. When applying Unioil TM 200, the appearance of concrete surfaces is enhanced while the service life of formwork itself is prolonged.

Application

Unioil TM 200 can be applied for steel, wooden and plastic formwork, it is used when immediate removal of formwork is required.

User instructions

Unioil TM 200 preferably is applied using a spraying device with a broad nozzle. A big brush or roller could also be used. Apply economically and observe that no spill-overs should be left on horizontal surfaces, in edges and recesses.

Coverage

1 Litre is sufficient for about 30-40 m² surfaces.

Technical data

- State of aggregation: liquid
- Colour: colourless
- Density (kg/l): 0.81
- pH-Value: n.a.
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

Remarks

Unioil TM 200 is not suitable for rubber-lined and rubber formwork.

UNIOIL TM X61

Product description

Unioil TM X61 is a release oil made of herbal, natural and synthetic components and prevents concrete from sticking to the formwork. The product doesn't contain saponifiable or wax-like substances. Unioil TM X61 provides for an excellent release effect and the formwork remains clean with virtually any residues. Unioil TM X61 is primarily used in the production of precast concrete parts of which the formwork is to be removed immediately.

Application

Unioil TM X61 is used for steel and plastic formwork removal of: concrete pipes, concrete manhole rings and concrete slatted floors.

User instructions

Unioil TM X61 is thin and evenly applied to the formwork using a spraying device.

Coverage

1 Litre is sufficient for about 20-30 m² surfaces.

Technical data

- State of aggregation: liquid
- Colour: colourless
- Density (kg/l): 0.80
- pH-Value: 7
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

Remarks

Provide for good ventilation, no open flames.

UNIOIL TM X25 BIO

Product description

UNIOIL TM X25 BIO is a release agent of universal use. The product consists of herbal, natural and synthetic ingredients and prevents the concrete from sticking to the formwork. The product doesn't contain wax-like or saponifiable substances. UNIOIL TM X25 BIO provides for clean removal of the formwork. The formwork will be almost free of residues, thus there will only be little effort for cleaning the formwork. UNIOIL TM X25 BIO can be used for the production of precast concrete parts which are to be directly released from the formwork as well as for concrete which remains in the formwork for a longer period of time.

Application

UNIOIL TM X25 BIO is used for steel, plastic and coated wooden formwork. Especially suitable for the formwork removal of: Bottom sockets, casted concrete adjusting units, steel formwork in the production of washed concrete, concrete slatted floors, wooden screen printing plates.

User instructions

UNIOIL TM X25 BIO is applied on the formwork thin and evenly using a spraying device.

Coverage

1 Litre covers about 30 to 40 m² of formwork surfaces.

Technical data

- State of aggregation: liquid
- Colour: yellow
- Density (kg/l): 0.87
- pH-Value: n.a.
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

Remarks

Provide for good ventilation, no open flames.

UNIOIL TM X41

Product description

Unioil TM X41 is a universal release agent which can be used in many fields of application. The product consists of high-quality mineral ingredients and contains corrosion-inhibiting substances, but no solvents. Applied correctly, Unioil TM X41 enables excellent formwork removal and doesn't leave any concrete residues. The concrete surface retains its consistent colour while the percentage of air pores is reduced.

Application

Unioil TM X41 enables excellent results on non-absorbing formwork surfaces, for example steel, plastic, Betoplex and Betoplan.

User instructions

Unioil TM X41 is thinly applied using a spraying device with a broad nozzle.

Coverage

1 Litre covers about 30 to 40 m² of formwork surfaces.

Technical data

- State of aggregation: liquid
- Colour: yellow
- Density (kg/l): 0.83
- pH-Value: n.a.
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

UNIOIL TM X43

Product description

Unioil TM X43 is a universal formwork oil which is especially suitable for concrete with a high consistency class or self-compacting concrete. It consists of high-quality mineral raw materials and contains corrosion-inhibiting ingredients. Moreover, Unioil TM X43 is completely free of solvents and is categorised as class II in the classification of formwork release agents (NL). Applied correctly, Unioil TM X43 provides for excellent formwork removal and doesn't leave concrete residues on the formwork. The concrete surface retains a uniform colour, and air pores are reduced to a minimum.

Application

Unioil TM X43 provides for good results on non-absorbing surfaces, for example steel, plastic and Betoplex. The product can be used indoors and outdoors.

User instructions

Unioil TM X43 is applied thinly using a spraying device with a broad nozzle.

Coverage

Avoid excessive application. 1 Litre of Unioil TM X43 will be sufficient to treat 30 to 40 m².

Technical data

- State of aggregation: liquid
- Colour: light yellow
- Density (kg/l): 0.83
- pH-Value: n.a.
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

FORMWORK OIL TM B

Product description

Formwork oil TM B is an emulsion which prevents concrete from sticking to formwork. It consists of natural basic materials and is biodegradable.

Application

Formwork oil TM B can be used for wooden, steel, rubber and plastic formwork.

User instructions

Formwork oil TM B is thin and evenly sprayed on the formwork surfaces. The film takes about 15 minutes to fully develop after which the concrete can be cast. To ensure perfect coating, spraying should be executed with a round nozzle and with a pressure of at least 4 bar.

Consumption

1 Litre is sufficient for about 30-40 m² surfaces.

Technical data

- State of aggregation: liquid
- Colour: white
- Density (kg/l): 0.98
- pH-Value: 7.0
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 6 months after date of production

Packaging

Cans, barrels, containers, bulk.

Remarks

Formwork oil TM B should be thoroughly stirred before usage.

FORMWORK OIL TM E

Product description

Formwork oil TM E is an emulsion which prevents concrete from sticking to the formwork. It is a product with a physical effect. It doesn't contain saponifiable or wax-like substances and is perfectly suitable for the production of fair faced concrete surfaces, as there is virtually no generation of stains or sanding. Formwork oil TM E provides for easy formwork removal, even if there are interim storage times. The costs for cleaning the formwork are reduced. Thin and evenly applied, further layers, e.g. bonding bridges, wall tiles, paint, plaster, and so on, can be applied without problems.

Application

Formwork oil TM E is suitable for steel and plastic formwork and for plastic-coated timber. This product is also perfectly suitable for the production of fair faced concrete surfaces.

User instructions

Formwork oil TM E is thin and evenly sprayed on the formwork using a round nozzle. A big brush or roller could as well be used for the application. Formwork oil TM E shouldn't be applied too excessively and spill-overs in angles, recesses and on horizontal surfaces should be avoided.

Coverage

1 Litre Formwork oil TM E is sufficient for about 30-40 m² Surfaces.

Technical data

- State of aggregation: liquid
- Colour: white
- Density (kg/l): 0.92
- pH-Value: 6.5
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 6 months after date of production

Packaging

Cans, barrels, containers, bulk.

Remarks

Formwork oil TM E is not suitable for rubber and rubber-lined formwork.

FORMWORK PASTE TM ECO-5

Product description

Formwork paste TM eco-5 is a physical-chemical, viscous, water-based emulsion. It is biodegradable and doesn't contain solvents. Formwork paste TM eco-5 can easily be applied on the formwork with a big brush, or soft broom, or something like that. After application, the emulsion breaks up, the oil remains on the formwork. Formwork paste TM eco-5 provides for excellent formwork removal. The concrete surfaces are smooth and evenly coloured.

Application

Formwork paste TM eco-5 is perfectly suitable for steel, wooden and plastic formwork. It is especially applicable for vast vertical surfaces and closed formwork. It is quite easy to spread Formwork paste TM eco-5 evenly.

User instructions

Formwork paste TM eco-5 is evenly applied with a big brush or soft broom.

Coverage

Coverage varies depending on the type of formwork.

Technical data

- State of aggregation: viscous
- Colour: white
- Density (kg/l): 0.91
- pH-Value: 7.5
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 6 months after date of production

Packaging

Buckets.

Remarks

Formwork Paste TM ECO-5 is not suitable for rubber and rubber-lined formwork.

FORMWORK OIL TM S-06

Product description

Formwork oil TM S-06 is a physical, biodegradable formwork oil. Due to its special contents, it can be applied on wet surfaces. Formwork oil TM S-06 doesn't contain solvents, or saponifiable or wax-like substances. Formwork oil TM S-06 enables excellent formwork removal.

Application

Formwork oil TM S-06 is perfectly suitable for steel, wooden and plastic formwork. It can easily be applied thin and evenly.

User instructions

Formwork oil TM S-06 is thin and evenly sprayed on the formwork using a broad spray nozzle. A big brush or a roller can also be used for the application. The product should not be applied excessively, and no accumulations of oil should remain on horizontal surfaces, in angles and recesses.

Coverage

1 Litre is sufficient for about 30-40 m².

Technical data

- State of aggregation: liquid
- Colour: yellow
- Density (kg/l): 0.83
- pH-Value: 5.0
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

Remarks

Formwork oil TM S-06 is not suitable for rubber and rubber-lined formwork.

FORMWORK OIL TM S-04

Product description

Formwork oil TM S-04 is a formwork oil with physical properties which ensures excellent formwork removal. The product is biodegradable and doesn't contain solvents or saponifiable substances. To improve the adhesion on vertical surfaces, Formwork oil TM S-04 contains wax-like substances. This results in less oil being spoilt during application.

Application

Formwork oil TM S-04 is perfectly suitable for steel, wooden and plastic formwork. Formwork oil TM S-04 can very easily be applied thin and evenly.

User instructions

Formwork oil TM S-04 is thin and evenly sprayed upon the surfaces. With a special spraying nozzle (T-Jet, Type 6501), and a spraying pressure between 4.5 and 5 bar, excellent results can be obtained. Avoid excessive use and take care no oil accumulates on horizontal surfaces, in angles and recesses.

Coverage

1 Litre is sufficient for about 30-40 m².

Technical data

- State of aggregation: liquid
- Colour: yellow
- Density (kg/l): 0.84
- pH: 6.0
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

Remarks

Formwork oil TM S-04 is not suitable for rubber and rubber-lined formwork.

FORMWORK OIL TM M10

Product description

Formwork oil TM M10 is a biodegradable formwork oil with physical properties. Special contents enable the product to be applied on wet surfaces. Formwork oil TM M10 doesn't contain solvents, saponifiable or wax-like substances. Formwork oil TM M10 provides for excellent formwork removal.

Application

Formwork oil TM M10 is perfectly suitable for steel, wooden and plastic formwork. If there are rusty spots on steel formwork, Formwork oil TM M10 could be the ideal solution to that problem; the rusty spots will have disappeared after several applications of the product.

User instructions

Formwork oil TM M10 is thin and evenly sprayed on the formwork using a spraying device with a broad spray nozzle. A big brush or a roller can also be used for the application. Avoid excessive use and take care no oil accumulates on horizontal surfaces, in angles and recesses.

Coverage

1 Litre is sufficient for about 30-40 m².

Technical data

- State of aggregation: liquid
- Colour: yellow
- Density (kg/l): 0.84
- pH: n.a.
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

Remarks

Formwork oil TM M10 is not suitable for rubber and rubber-lined formwork.

FORMWORK OIL TM M12

Product description

Formwork oil TM M12 is a physical, biodegradable release agent containing special substances which enable the application on slightly wet or lightly rusty surfaces. Formwork oil TM M12 doesn't contain solvents, saponifiable or wax-like substances. Formwork oil TM M12 causes formidable release effects. Formwork oil TM M12 has corrosion-inhibiting properties which make it an excellent product for rusty steel formwork. In many cases corrosion should be clearly reduced after a number of days of use.

Application

Formwork oil TM M12 is particularly suitable for steel, wooden and plastic formwork. Moreover, Formwork oil TM M12 is to be applied in a very thin layer.

User instructions

Formwork oil TM M12 is sprayed thin and evenly on the formwork using a high-pressure spraying device with a broad nozzle. Alternatively, a roll or big brush can be used. The product shouldn't be used excessively and there shouldn't be any spill-overs on horizontal surfaces or in edges of the face sides.

Coverage

1 Litre is sufficient for about 30-40 m².

Technical data

- State of aggregation: liquid
- Colour: yellow
- Density (kg/l): 0.83
- pH: n.a.
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

Remarks

Formwork oil TM M12 is not suitable for rubber and rubber-lined formwork.

8.1 CURING AGENTS

CURING COMPOUND TM 85/60

Product description

Curing Compound TM 86/60 is a product for curing concrete and mortar consisting of resin. The product does contain solvents. After spreading Curing Compound TM 85/60, there will be a thin, shiny, and water-vapour-proof protective film on the surfaces treated. This protective film prevents the evaporation of water, which is needed for the cement hydration. Thus, Curing Compound TM 85/60 prevents the surfaces from drying up too soon, the formation of cracks, and dusting, which is quite undesirable for cement-bound floors.

Application

Curing Compound TM is primarily used to produce industrial floors where thorough curing is necessary and shiny concrete surfaces are requested.

User instructions

Curing Compound TM 85/60 is evenly sprayed on the surface immediately after the concrete or mortar surface has been wiped.

Coverage

1 Litre is sufficient for about 4-8 m².

Technical data

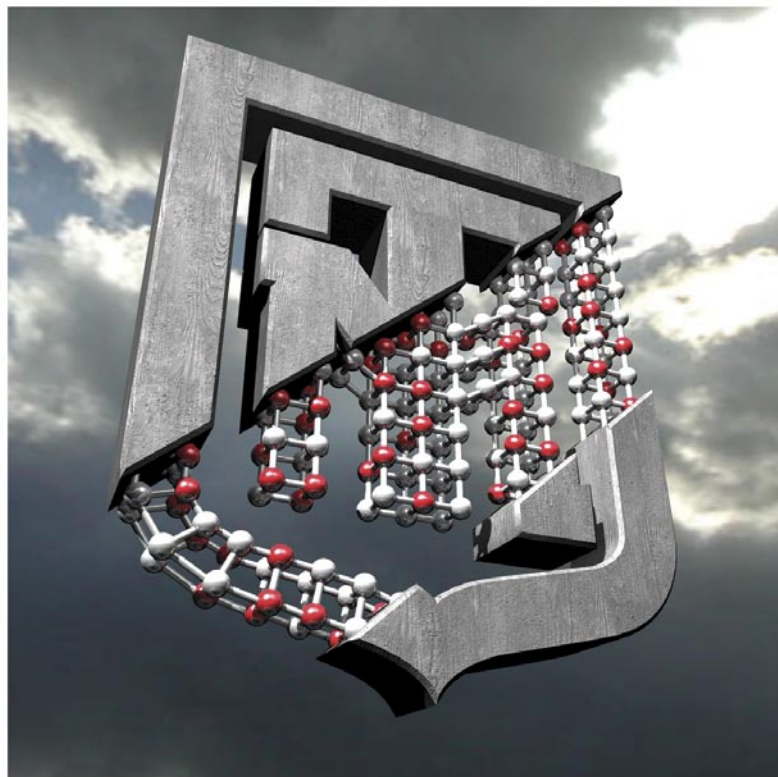
- State of aggregation: liquid
- Colour: transparent
- Density (kg/l): 0.89
- pH-Value: 6.5
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

Remarks

When using Curing Compound TM 85/60, good aeration is most important. No open flames! Devices should, immediately after usage, be cleaned with toluene.



CURING COMPOUND TM P-OT

Product description

Curing Compound TM P-OT is a curing compound for concrete on the basis of emulsified paraffin. After applying Curing Compound TM P-OT, there will be a wax-like protective film on the concrete surface. Thus, the water is kept in the concrete as long as necessary. Curing concrete with Curing Compound TM P-OT furthermore prevents shrinkage cracks. The decomposition of the protective film depends on the weather conditions and on stress.

Application

Curing Compound TM P-OT is used for concrete surfaces if no further layers, e.g. cement-bound mortar, tiles or colour markings have to be applied. Curing Compound TM P-OT is perfectly suitable for curing concrete bicycle and footpaths, or concrete used in road construction, and so on.

User instructions

Curing Compound TM P-OT is evenly sprayed onto concrete or mortar surfaces immediately after these surfaces have been wiped.

Coverage

1 Litre is sufficient for about 4-5 m².

Technical data

- State of aggregation: liquid
- Colour: white
- Density (kg/l): 0.98
- pH-Value: 5.0
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 6 months after date of production

Packaging

Cans, barrels, containers, bulk.

Remarks

Adhesion of further layers, for example mortar, paint or coatings, might be reduced due to the paraffin. However, in most cases it can be removed with hot water or by using a steam cleaner.

WATERTIGHT MEMBRANE TM

Product description

Watertight Membrane TM is an alcohol-based curing compound for concrete. After the formwork removal of precast elements, water can evaporate in a very short period of time which can cause shrinkage. Watertight Membrane TM limits the loss of water after the formwork has been removed.

Application

Watertight Membrane is applied to pillars and walls immediately after formwork removal. Its effects last for about 10 days and it is completely decomposed after 14 days.

User instructions

Watertight Membrane TM is evenly applied directly after formwork removal.

Coverage

1 Litre is sufficient for about 15 m².

Technical data

- State of aggregation: liquid
- Colour: transparent
- Density (kg/l): 0.79
- pH-Value: 7.0
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

Remarks

When using Watertight Membrane TM, provide for good aeration, don't smoke, prevent any contact with open flames.

CURING COMPOUND TM AC-1

Product description

Curing Compound TM AC-1 is a curing compound for concrete and consists of emulsified acrylic resin. A thin film is generated on the surfaces after Curing Compound TM AC-1 has been applied. This film keeps the water needed for cement hydration in the concrete. Curing concrete with Curing Compound TM AC-1 is necessary to prevent shrinkage caused by fast drying because this could result in the formation of surface cracks.

Application

Curing Compound TM AC-1 is particularly suitable if there are further layers to be added for which good adhesion on the underground is important. For example, additional layers could be colour marks on roads, surface finishing, or tiles. Additionally, Curing Compound TM AC-1 can be used for the curing of footpaths or similar structures made of concrete, concrete used for road construction, mortar, plaster, and so on. If paintwork is to be done later, an acrylic-based paint should be used.

User instructions

Curing Compound TM AC-1 is evenly sprayed on the surface to be treated, using an appropriate spraying nozzle. The curing compound is applied directly after the surfaces have been wiped and have reached their matt-finished appearance.

Coverage

1 kg is sufficient for about 4-5 m².

Technical data

- State of aggregation: liquid
- Colour: white
- Density (kg/l): 1.02
- pH-Value: 9.0
- max. alkali content (%Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 6 months after date of production

Packaging

Cans, barrels, containers, bulk.

CURING COMPOUND TM B

Product description

Curing Compound TM B is a resin-based curing compound for concrete and mortar. A thin film will cover the surface treated after Curing Compound TM B has been applied. This film prevents excessive evaporation of water in near-surface areas.

Application

Curing Compound TM B is applied in the production of industrial floors, for which thorough curing is necessary. Curing Compound TM B prevents the premature drying of the concrete surface and thus prevents the formation of cracks. White colour pigments are added to the product, therefore after the cement hydration, a white surface remains.

User instructions

Curing Compound TM B is evenly sprayed on the concrete surface immediately after wiping, or after the surface gained its matt-finished appearance respectively. The drying period of Curing Compound TM B depends on the temperature, it takes about one hour. Stir well before usage. The spraying device can be cleaned with warm water, to which a small amount of spirit may be added.

Coverage

1 Litre is sufficient for about 4-5 m².

Technical data

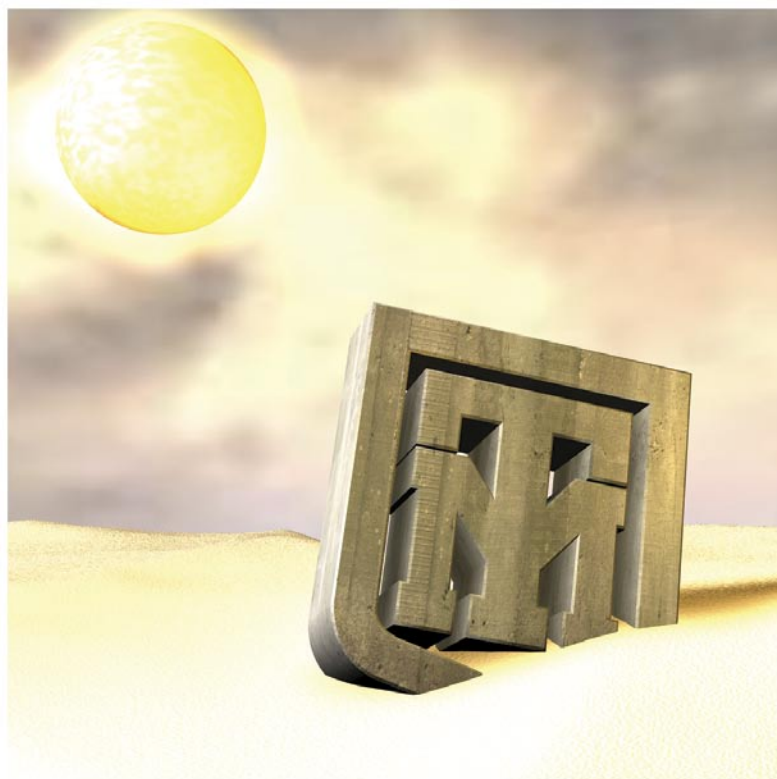
- State of aggregation: liquid
- Colour: white
- Density (kg/l): 0.99
- pH-Value: 6.5
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 6 months after date of production

Packaging

Cans, barrels, containers, bulk.

Remarks

The adhesion of further layers might be decreased due to remaining resin layers.



POLYTOP TM AF 20

Product description

Polytop TM AF 20 is a product which holds chemical properties to increase the tightness of concrete. It penetrates the near-surface area of concrete and screed to solidify and seal them permanently. The concrete pores are blocked from the inside. The tightness of near-surface areas is remarkably improved while at the same time strength is increased as well.

Application

Polytop TM AF 20 is used to increase the water impermeability of mineral construction materials. Resistance to abrasion and wear and tear, as well as the chemical resistance to oil, fat, acid, and basic substances is increased while efflorescence is diminished. Possible fields of application can be the construction of industrial floors in storage rooms, production facilities, cold storage rooms, parking sites, department stores, facilities for research and development.

User instructions

Polytop TM AF 20 can be applied to freshly cast concrete surfaces and hardened concrete surfaces alike. Every contact of the fresh product with glass or aluminium has to be avoided in all circumstances. If Polytop TM AF 20 gets in contact with these materials however, immediately rinse it off with plenty of water. Polytop TM AF 20 should not be applied on surfaces that have been treated before, e.g. with other curing compounds. Other courses, for example glues or paints, can be applied to Polytop TM AF 20.

The amount consumed of Polytop TM AF 20 depends on the reactivity and porosity of the concrete. At a temperature of 20°C, a consumption of 0.15-0.25 kg/m² is to be expected.

The product is to be stirred or agitated well before use. If Polytop TM AF 20 is applied richly, one application of the concrete surface should be sufficient. Tools can afterwards be cleaned with water.

Application on new concrete surfaces:

Polytop TM AF 20 is applied immediately after the processing of the concrete surface (the floor has already to be accessible). The best results are obtained only if Polytop TM AF 20 is richly applied. Thus, pouring Polytop TM AF 20 on the surface to spread it with a soft broom or adequate roller is recommended. The surface is "flooded", and for at least 30 minutes it should be kept wet. During this penetration phase, dry spots appearing on the surface should be avoided. This is done by adding more Polytop TM AF 20, or by redistributing excessive liquid to highly-absorbent areas (attention should also be given to rims and borders). After these 30 minutes, the product should become gel-like and slippery. The exact point of time of the gelation depends on environmental temperatures and conditions. Immediately after gelation, a small amount of water is sprayed on the surface. This leads to Polyflow TM AF 20 dissolving again, which means that it is no longer gel-like and slippery. Using a broom, penetration is supported. Again, there's a waiting time before Polytop TM AF 20 becomes gel-like and slippery again. Now the concrete surface is completely rinsed with water and excessive Polytop TM AF 20 is wiped off, as well as the remaining water. Applying a polishing machine results in a faster development of surface gloss.

Application on existing concrete surfaces:

The concrete surface has to be completely free of any substance that might prevent penetration of Polytop TM AF 20. Dust and dirt have to be wiped off. Polytop TM AF 20 should be allowed to penetrate the surface for about 30 minutes. After these 30 minutes, the product should become gel-like and slippery. Now the concrete surface is completely rinsed with water and excessive Polytop TM AF 20 is wiped off, as well as the remaining water.

Coverage

N.a.

Technical data

- State of aggregation: liquid
- Colour: colourless
- Density (kg/l): 1.15
- pH-Value: 11.5
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

Remarks

Not to be applied on aerated concrete or other highly-porous materials.

Product description

Polytop TM 2 is a chemically acting product used to enhance the impermeability of concrete. The product saturates stone-like materials (like concrete, screed, masonry mortar, brickwork, plaster, etc.) and durably hardens and preserves them. A deep and thorough saturation of the treated surface can be obtained due to the low viscosity of POLYTOP TM 2. Chemical reactions cause the formation of hard and impermeable compounds. POLYTOP TM 2 can be used as a cost-effective alternative to surface coatings. Even older, existing surfaces can be enhanced qualitatively (redeveloped).

Application

Polytop TM 2 can be used to improve new and older concretes. It doesn't make any difference how the surface was finished; by using a power trowel or broom, polished or coloured concrete or terrazzo. The domains of application are vast; - liquid-tight surfaces, - chemically stressed surfaces, - wear-resistant floors, - dust-laden floors, - to enhance the colour of surfaces, as a protection against alkalinity and efflorescence. Subsequent markings can be done without further ado.

User instructions

The surfaces to be treated with Polytop TM 2 have to be cleaned thoroughly. Sinter layers, old surface coatings, oils and fats, paints and dust have to be removed.

In case of doubt, existing concrete surfaces have to be abraded or sandblasted before a treatment with Polytop TM 2. The surface to be treated must be free from any curing compound!

Consumption strongly depends on the absorption behaviour of the surface, as it is quite porous, higher consumption should be anticipated.

Consumption usually is 150-250 ml/m².

Polytop TM 2 should be processed at temperatures between 5° and 30° C.

Suitable media of application are low pressure spraying devices, brooms or rubber slide bars.

Polytop TM 2 can be sprayed or poured onto the surface.

When sprayed onto the surface, the product should be applied in longitudinal and cross directions to obtain an adequate and overall application.

A surplus of Polytop TM 2 can be drawn to more porous areas by using a rubber slide bar.

On fresh concrete, Polytop TM 2 can be polished into the surface immediately after application by using a power trowel.

Coverage

N.a.

Technical data

- State of aggregation: liquid
- Colour: colourless
- Density (kg/l): 1.08
- pH-Value: 11.0
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

Remarks

Avoid any contact of Polytop TM 2 and glass, light metals and alloys.

9.1 PRIMERS

Product description

Concrete repair emulsion TM is an admixture on the basis of synthetic resins and increases the tensile and adhesive strength of the cement-bound products to which it is added. Moreover, workability is increased, resistance to frost and chemicals, and water-tightness are improved.

Application

Concrete repair emulsion TM is used for producing repair mortar for concrete and for making bonding bridges.

User instructions

Making a bonding bridge:

1 part of cement is thoroughly mixed with 1 part of Concrete repair emulsion TM, and the mixture is then thinly applied on the concrete surface with a brush.

Production of repair mortar:

Cement and sand are mixed in a relation of 1:2 or 1:3. Concrete repair emulsion TM is added to the mix water (2-3% of the cement weight, which might be 1-1½ litres per sack of cement). Everything is thoroughly mixed in a rotary-drum or compulsory mixer.

All surfaces have to be free of dust and grease. Before the application of the bonding bridge or the repair mortar, the surface should be wetted sufficiently. However, the water shouldn't be used too excessively and slops should be wiped off. As soon as all preparations are made, mix the repair mortar or bonding bridge and apply them according to the instructions.

Dosage

N.a.

Technical data

- State of aggregation: liquid
- Colour: white
- Density (kg/l): 1.06
- pH-Value: 5.0
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 6 months after date of production

Packaging

Cans, barrels, containers, bulk.

ACRYTEKT™

Acrytekt™ (3302)
Acrytekt™ Powder (3304)

Product description

Acrytekt™ is a dispersion of synthetic resins based on acrylate. It is used as a bonding bridge between existing and fresh concrete or for repairing concrete and mortar elements. Used as a bonding bridge or added to fresh concrete or mortar, this admixture increases adhesive pull and tensile strength, and workability. Additionally, Acrytekt™ increases the resistance to penetrating moisture and the chemical resistance.

Application

Acrytekt™ is used to make bonding bridges, to repair layers of concrete and mortar, to make mortar which is used to seal leakages in cellars, to make water-tight joints and walls, to produce water-tight concrete, to apply preliminary layers on walls, to produce screed floors, to enhance the chemical resistance of the final product.

User instructions

The surface to be treated has to be free of dust and grease; it has to be thoroughly wetted before the application. Acrytekt™ is mixed with cement in a ratio of 1:0.5 up to 1:1 and applied to the surface with a big brush or roller. As far as Acrytekt™ powder is concerned, the requested consistency is obtained by adding water. When using Acrytekt™ powder, a longer mixing time should be expected.

The concrete or mortar should be applied to the slightly wet bonding bridge and then be treated with Curing Compound™, to prevent premature drying. Acrytekt™ can be applied in its undiluted condition if it is used as an undercoat on walls to increase the adhesion of further layers like mortar or plaster, or to increase water impermeability and chemical resistance.

Remarks

Further information is available on request.

Dosage

N.a.

Technical data

Acrytekt	Acrytekt Powder
State of aggregation:	
liquid	powder
Colour:	
white	white
Density (kg/l):	
1.04	n.a.
pH-Value:	
8.5	n.a.
max. alkali content (% Na ₂ O-eq):	
n.a.	n.a.
max. chloride content (%):	
0.1	n.a.
Colour code:	
n.a.	n.a.
Storage: dry, frost-protected, in closed packaging	
Shelf-life: when stored correctly at least 6 months after date of production.	

Packaging

Liquid: Cans, barrels, containers, bulk.

Powder: Sacks, pallets, big bags.

ACRYTEKT TM XB-1020**Product description**

Acrytekt TM XB-1020 is a ready-to-use admixture for concrete and masonry mortar. Acrytekt TM XB-1020 substantially increases the tightness of the hardened construction material. Moreover, the chemical resistance is improved which makes Acrytekt TM XB-1020 perfectly suitable to be used in aggressive environments.

Application

Acrytekt TM XB-1020 is used if special demands on concrete and mortar parts have to be met, for example:

- elements that have to be water- or liquid-tight
- elements with an increased resistance to frost and de-icing agents
- mortar and concrete suitable for the use in aggressive environments

Dosage

- Min. dosage: 1.0% of the cement weight
- Max. dosage: 3.0% of the cement weight
- Method of adding and point of time: preferably added directly after the mix water

Technical data

- State of aggregation: liquid
- Colour: white
- Density (kg/l): 1.02
- pH-Value: 9.0
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 6 months after date of production

Packaging

Cans, barrels, containers, bulk.



PRIMER TM

Product description

Primer TM is a high-quality product that is used to solidify absorbing but intact surfaces. Primer TM is a ready-to-use, solvent-free emulsion. This product increases the stability of the surface and improves the adhesion of the existent underground and further cement-bound layers like mortar, concrete and plaster. Preliminary treating surfaces with Primer TM prevents fast loss of water due to absorbent materials and thereby diminishes the formation of shrinkage cracks, while adhesion is improved.

Application

Primer TM is suitable for plaster, plaster elements, porous concrete blocks, sand-lime brick, concrete and brick walls. Furthermore, it can be used as a bonding bridge before applying tile adhesive, levelling courses, or cement-bound repair mortar. Primer TM is milky-white in colour, and once it is hardened, is a solid, transparent and colourless protective layer. As a solvent-free dispersion, Primer TM can safely be used in rooms which cannot, or can only poorly, be aerated.

User instructions

Consumption of Primer TM is highly dependent on the texture and porosity of the surface treated. This surface has to be clean and dry, and free of oil, grease, remainders of glue or paint or other things like this. When pre-treating plaster-like surfaces, the producer's recommendations regarding maximum amount of liquid applied, as well as the strength of the layer and its surface structure have to be observed. Primer TM can undiluted, and evenly be applied with a big brush or by standard spraying device. If the treated surface is highly absorbent, the application of a second layer is recommended. When applying Primer TM to cement-bound floors and walls, the very first layer is to be removed. This product shouldn't be applied too excessively, slops of exceeding material should be avoided. The necessary equipment should be cleaned with water immediately after usage.

Dosage

N.a.

Technical data

- State of aggregation: liquid
- Colour: white, transparent after drying
- Density (kg/l): 1.02
- pH-Value: n.a.
- max. alkali content (% Na_2O -eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 6 months after date of production

Packaging

Cans, barrels, containers, bulk.

BONDING BRIDGE TM

Product description

Bonding Bridge TM is a high-quality, mineral-bound, cement-bound bonding bridge for bonding cement-bound screeds and Tillman's hard material systems. Bonding Bridge TM is a ready-made product and especially suitable for clean-up operations.

Application

Bonding Bridge TM is used whenever an ideal bond on hardened concrete surfaces is important. Bonding Bridge TM is used:

- whenever repair mortar is processed (for example, when using Tillman's PCC Repair System)
- on cement-bound screed and heating screed
- on hard materials courses
- for clean-up operations

User instructions

The surface to be treated has to be clean, free of dust and fat and intact. Extremely smooth surfaces roughened up to enhance adhesion. Weak spots like deposits of cement slurry, cracks or gravel pockets have to be repaired in advance. Shortly before the application of Bonding Bridge TM, the surface to be treated is wet sufficiently; avoid puddles of water. Existing joints in the underground have to be transferred!

Consumption

Mix about 5-6 litres of water with 25 kg (1 sack) Bonding Bridge TM. The needed amount of water should be determined in advance as the water should be added in one single dose – avoid segmenting the amount of mix water and don't add too much water. The amount of water added influences the quality of adhesion! A slow-going mixer should be used for at least 3 minutes, or until a brushable consistency is obtained. Bonding Bridge TM is then applied to the pale damp surface in a layer of 1-2 mm using a brush, big brush or broom. In any case, dehydration of Bonding Bridge TM has to be avoided. The following courses are to be applied immediately onto the still fresh bonding bridge.



Consumption

About 2 kg/m², depending on the type and absorptive capacity of the respective underground. Processing and surface temperatures >5°C.

Technical data

- State of aggregation: powder
- Colour: grey
- Density (kg/l): n.a.
- pH-Value: n.a.
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 6 months after date of production

Packaging

Sacks, pallets, big bags.

10.1.1 CEMENT-BOUND MORTARS

INJECTION MORTAR TM 91/31

Product description

Injection mortar TM 91/31 is a cement-bound, low-shrinkage mortar used to fill prestressing cuts and cavities. Even with a low water-cement ratio, Injection mortar TM 91/31 exhibits high fluidity and excellent adhesive properties which ensure a flawless bond with the prestressing steel. The product's special components compensate the shrinkage of the cement. Moreover, the prestressing steel is protected from corrosion, the tightness is enhanced, and high final strength is obtained.

Application

Injection mortar TM is used to fill prestressing cuts and cavities in and under prefabricated parts.

User instructions

For a water-solid ratio of 0.34% (standard value), approximately 8.5 litres of water are added for every 25 kg of mortar. The best results for mixing are obtained if a colloidal mixer or a compulsory mixer are used. A mixing time of 2 minutes has to be observed. The decisive factors for an increase in volume are water content, temperature and the reactivity of the cement.

Dosage

N.a.

Technical data

- State of aggregation: powder
- Colour: grey
- Density (kg/l): n.a.
- pH: n.a.
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): 0.1
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 6 months after date of production

Packaging

Sacks, pallets, big bags.

Remarks

At temperatures of less than 10°C, the increase in volume will be notably smaller than expected.

LEVELLING COMPOUND TM

Product description

Levelling compound TM is made of high-quality cement and silica sand of grain sizes of up to 0.5 mm. The product contains resins which improve the adhesion to the surface, and components which enhance fluidity. Levelling compound TM is applied to textured/rough concrete surfaces. The product is self-levelling due to its special flowing properties, which results in a complete and even surface. Approximately 3-4 hours after mixing, the hardening process begins.

Application

Levelling compound TM is used to even out concrete floors or to level and repair larger surface defects and holes in concrete floors.

User instructions

Wet the cleaned surface (no excessive water, no slops). Preferably, a bonding bridge is applied, consisting of 1 part of Acrytekt TM (Art. No. 3302) and 1 part of water. It is recommended to add 6.5 litres of water to every 25 kg of Levelling Compound TM, which are then mixed in a rotary-drum or compulsory mixer. The ready mortar is then evenly spread on the surface. To prevent excessive loss of water, the surface should then be treated with Curing Compound TM AC-1 (Art. No. 3204).

Consumption

About 12 litres of mortar will be obtained by adding water to 25 kg Levelling Compound TM.

Technical data

- State of aggregation: powder
- Colour: grey
- Density (kg/l): n.a.
- pH-Value: n.a.
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride: n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 6 months after date of production

Packaging

Buckets, sacks, pallets.

Remarks

Levelling compound TM:

	Density in kg/l	Tensile strength N/mm ²	Com- pres- sive strength N/mm ²	Adhe- sive pull strength N/mm ²
24 hours	1.90	2.0	7.5	-
7 days	1.92	2.9	12.5	1.2
28 days	1.90	5.8	35.0	2.3

PLASTER MORTAR TM

Plaster mortar TM grey 1 mm (5112)
 Plaster mortar TM grey 4 mm (5139)
 Plaster mortar TM white 1 mm (5140)
 Plaster mortar TM white 4 mm (5141)

Product description

Plaster mortar TM is a high-quality mortar consisting of grey or white CEM-I cement, sand and diverse additives. These additives not only improve the workability but also enhance the adhesion to the underground.

Application

Plaster mortar TM is used as a levelling course on concrete and brickwork. Layers of Plaster mortar TM 1 mm grey or 1 mm white can be 3-20 mm thick. Thicker layers can be obtained by using PM TM 4 mm grey or 4 mm white. Additionally, these thicker layers can be added another, levelling, course of Plaster mortar TM 1 mm wet-on-wet. In this case, a net is to be applied between the coarse and fine layers to obtain an optimised connection of both layers.

User instructions

The surface has to be free of grease, oil, dirt, or any other loose particles. Highly absorbent surfaces should be pre-treated; first they are moistened, and then an adhesive emulsion is applied (use 1 part of Acrytekt TM and 1 part of water).

This emulsion can be applied with a big brush. Then, 25 kg of Plaster mortar TM is mixed with 3-3.5 litres of water in a mortar mill. Plaster mortar TM is applied to the wet underground with suitable tools. If several layers of mortar are to be applied, it has to be done wet-in-wet. The temperature of the mortar during processing has to be at least 5°C, and after processing, the mortar has to be protected from frost. Excessive drying can be prevented by treating the fresh surface with Curing Compound TM AC-1 (Art. No. 3204).

Consumption

About 50 litres of mortar can be prepared from 100 kg Plaster mortar TM.

Technical data

- State of aggregation: powder
- Colour: grey-white
- Density (kg/l): n.a.
- pH-Value: n.a.
- max. alkali content (% Na_2O -eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 6 months after date of production

Packaging

Sacks, pallets, big bags.

SPRAY MORTAR TM

Product description

Spray mortar TM is a ready-for-use mortar made of high-quality cement and quartz sand. Resins added to the product provide for good adhesion to the underground and for sufficient water-retaining properties. Spray mortar TM is a plaster mortar that can be applied using standard plaster-spraying systems. The layer applied can be 10-30 mm thick. The mortar is coloured evenly grey and will exhibit an especially compact surface.

Application

Spray mortar TM is used for plastering on brickwork and as a levelling course.

User instructions

The cleaned underground is wetted. A low-plasticity mortar is prepared by mixing Spray mortar TM and water. About 5.50-5.75 litres of water should be added for every 25 kg of Spray mortar TM. Workability is to be adjusted to the respective spraying system. Spray mortar TM is unfit for processing at freezing temperatures. To prevent premature loss in water, the mortar should be treated with Curing Compound TM AC-1 (Art. No. 3204).

Yield

100 kg Spray mortar TM, mixed with water will yield about 50 litres of mortar.

Technical data

- State of aggregation: powder
- Colour: grey
- Density (kg/l): n.a.
- pH-Value: n.a.
- max. alkali content (% Na_2O -eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 6 months after date of production

Packaging

Sacks, pallets, big bags.

Product description

Construction mortar TM E1 is perfectly suitable to be used as a bedding and filling mortar, which remains screwable after hardening. It's maximum grain size is 0.2 mm. The special components in the product provide for a high stability of the ready mortar and for a fast hardening process. The mortar's content in air pores will be about 25-30%; processing time is approximately 20 minutes at a temperature of 20°C.

Application

Construction mortar TM E1 is used for:

- the installation (bedding) of window frames and frame connectors
- filling cavities, and so on

User instructions

Construction mortar TM E1 is preferably mixed in a mortar mill. Depending on the purpose, no more than 1.5-2 litres of water are added for every 25 kg of mortar. The hardening begins quite fast (depending on ambient temperatures), the recommended processing time is 15-20 minutes at 20°C.

Yield

1 kg Construction Mortar TM E1, prepared with water will yield about 0.5 litre of mortar.

Technical data

- State of aggregation: powder
- Colour: grey
- Density (kg/l): n.a.
- pH-Value: n.a.
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 6 months after date of production

Packaging

Sacks, pallets, big bags.

JOINT FILLER FOR TILES TM

Joint filler for tiles TM white (5124)
Joint filler for tiles TM grey (5125)

Product description

Joint filler for tiles TM is a ready-for-use product for grouting tiles.

Application

Joint filler for tiles TM can be used for wall tiles and for floor tiles.

User instructions

Joint filler for tiles TM is preferably mixed mechanically. As the mixing proceeds, add small amounts of water until the desired consistency is obtained. Grouting is done with the appropriate tools. After grouting, the tiles are cleaned with a wet sponge, resistant cement stains can be removed with Tile cleaner TM.

Dosage

N.a.

Technical data

white	grey
State of aggregation:	
powder	powder
Colour:	
white	grey
Density (kg/l):	
n.a.	n.a.
pH-Value:	
n.a.	n.a.
max. alkali content (% Na ₂ O eq):	
n.a.	n.a.
max. chloride content (%):	
n.a.	n.a.
Colour code:	
n.a.	n.a.
Storage: dry, frost-protected, in closed packaging	
Shelf-life: when stored correctly at least 6 months after date of production.	

Packaging

Sacks, pallets, big bags.

Product description

Joint casting mortar TM 700 PFM is a cement-bound product which is primarily used for jointing natural stones. It is based on Portland cement and contains special substances which enhance the adhesion on the stones and increase water-tightness and frost-resistance. Joint casting mortar TM 700 PFM is part of the Tillman joint-casting system and has to be used with Curing Compound TM 702 HD 5 (Art. No. 5132). The curing compound prevents setting of the mortar close to the surface, thus after the hardening of the joints excessive material can be removed using a low-pressure washer with a special spray nozzle.

Joint casting mortar TM 700 PFM is resistant against:

- high strain caused by road traffic
- automated and high-pressure cleaning executed by road sweepers
- de-icing agents, oils (combustibles), fuels and frost

Joint casting mortar TM 700 PFM offers several advantages:

- cost savings for cleaning
- savings in upkeep expenses (re-filling of sand is made redundant)
- increase of long-time-durability of the whole paving, which reduces the costs of restoration and repairs
- savings regarding herbicides
- advantages for the environment as the high tightness of the joints prevents virtually every penetration, e.g. of oil, petrol, and so on; if the paving has to be renovated, Joint casting mortar TM 700 PFM is easily recyclable

Application

Joint casting mortar TM 700 PFM is used for high-quality jointing of natural stones, for example porphyry or granite. In special cases, Joint casting mortar TM 700 PFM can be used for jointing burnt stones. The underground has to be compacted and stabilised. The product is suitable for existing and new paving.

User instructions

The underground has to be clean, and free of oil and grease. Joint casting mortar TM 700 PFM is mixed in a rotary-drum or compulsory mixer. Approximately 3.5 litres of water are added for every 25 kg of dry mortar. The mixing time is 5 minutes. The ready mortar is then poured onto the stones and spread in the joints with a rubber wiper. Excessive material is removed. Now, Curing Compound TM 702 HD 5 (Art. No. 5132) is sprayed on the whole surface. Preferably, a thermoplastic foil can be used to additionally cover the surface to prevent premature drying of the mortar. After the hardening of the mortar, the surface is rinsed with a specially developed spray nozzle, applying low pressure, to remove excessive material and cement remainders. The right point of time for the cleaning primarily depends on the environmental temperatures; it can be determined by penetrating the mortar with a pointed object (ideal depth of penetration approximately 1-2 mm). Alternatively, one can try to clean a hidden patch of the paving to determine this point of time. Ideally, joints should be at least 3.5-4 cm in depth and at least 0.5 cm in breadth if Joint casting mortar TM 700 PFM is to be applied. Mixed with water, 2 kg of Joint casting mortar TM 700 PFM yield 1 litre of ready mortar.

Yield

2 kg Joint casting mortar TM 700 PFM, prepared with water will yield about 1 litre of mortar. Consumption depends on the paving material, the breadth and depth of the joints and on the pattern of the paving.

Technical data

- State of aggregation: powder
- Colour: grey
- Density (kg/l): n.a.
- pH-Value: n.a.
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 6 months after date of production

Packaging

Sacks, pallets, big bags.

Product description

Curing Compound TM 702 HD 5 is a ready-to-use emulsion which retards the hardening of Joint casting mortar TM 700 PFM (Art. No. 5131) in near-surface areas to ensure excellent cleaning of the stone surfaces.

Application

Curing Compound TM 702 HD 5 is exclusively used with the joint casting system TM (Art. No. 5131 and 5133).

User instructions

Curing Compound TM 702 HD 5 is spray-applied on the surface directly after Joint casting mortar TM 700 PFM has been cast and spread. The whole surface is then covered with a thermoplastic foil; its removal depends on the ambient temperatures and the strength of the mortar joints. The effect of the product is terminated as soon as the surface is wetted. The whole surface is then cleaned with a specially developed spraying nozzle, applying low water pressure. This also cleans the stones from a thin mortar layer. After cleaning, the stones should be higher than the joints (by some millimetres).

Dosage

- Min. dosage: 300-320 g/m²
- Max. dosage: n.a.
- Method of adding and point of time: n.a.

Technical data

- State of aggregation: liquid
- Colour: transparent-white
- Density (kg/l): 1.05
- pH-Value: 8.0
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans.



Product description

Pre-casting agent TM VGM 700 PFM is a ready-to-use wax-like emulsion which prevents Joint casting mortar TM 700 PFM from sticking to the surfaces of the stones to joint, and thus enables easy cleaning after paving. Pre-casting agent TM VGM 700 PFM is exclusively used with the Joint casting system TM (Art. No. 5131 and 5132). The product is solvent-free and environmentally friendly. As Pre-casting agent TM VGM 700 PFM is spray-applied, it penetrates the pores in the near-surface areas of rough and highly-absorbent paving stones. Smooth and non-absorbent objects, as well as metal parts can also be treated with this precasting agent.

Application

Pre-casting agent TM VGM 700 PFM is spray-applied:

- to neighbouring surfaces which are not treated with joint casting mortar, but could be stained by cement paste as the cleaning of the surface proceeds
- to surfaces with a compact structure, for example burnt stones as bricks and the like, which are to be treated with the joint casting system; Joint casting system TM is only to be applied if preliminary tests with the respective kind of stone have been conducted
- to precast elements, metallic man-hole covers, columns and so on, to protect these from staining. Due to the special wax-like emulsion, cement residues are avoided

User instructions

Pre-casting agent TM VGM 700 PFM is evenly sprayed on the clean and dry surface. The application has to take place in dry weather. During the application, the product is white in colour but becomes colourless-transparent after a short period of time. The surfaces treated might be slightly darker in colour; however, this difference will disappear soon. Pre-casting agent TM VGM 700 PFM mustn't come into contact with areas which are to be treated with Joint casting mortar TM 700 PFM.

**Consumption**

N.a.

Technical data

- State of aggregation: liquid
- Colour: white
- Density (kg/l): 0.98
- pH-Value: 5.0
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 6 months after date of production

Packaging

Cans, barrels, containers, bulk.

Remarks

The treated surfaces might be slippery after rainfalls due to the product's wax-like components. Using road sweepers, or other appropriate means, the surfaces can be cleaned of almost any remains. A good means to remove the wax-like surface is a pressure washer used with hot water. In case that colour markings or paints have to be applied later, reduced adhesion might be expected.

Joint filler for masonry TM 1 mm Grey (5142)
Joint filler for masonry TM 1 mm White (5143)

Product description

Joint filler for masonry TM which is based on grey or white CEM-I cement and contains synthetic resins. This ensures good workability and optimised adhesion in the joints.

Application

Joint filler for masonry TM is used for jointing concrete and standard bricks in- and outdoors.

User instructions

Using a compulsory mixer, an earth-moist mortar is prepared of Joint filler for masonry TM and water. The surface to be jointed has to be cleaned and stabilised. Highly-absorbent surfaces have to be wetted before the joint filler is applied with common jointing tools. The processing temperature has to be at least 5°C, and the freshly applied joint filler has to be protected from frost. Approximately 2.5 litres of mortar are added to every 25 kg of Joint filler for masonry TM.

Consumption

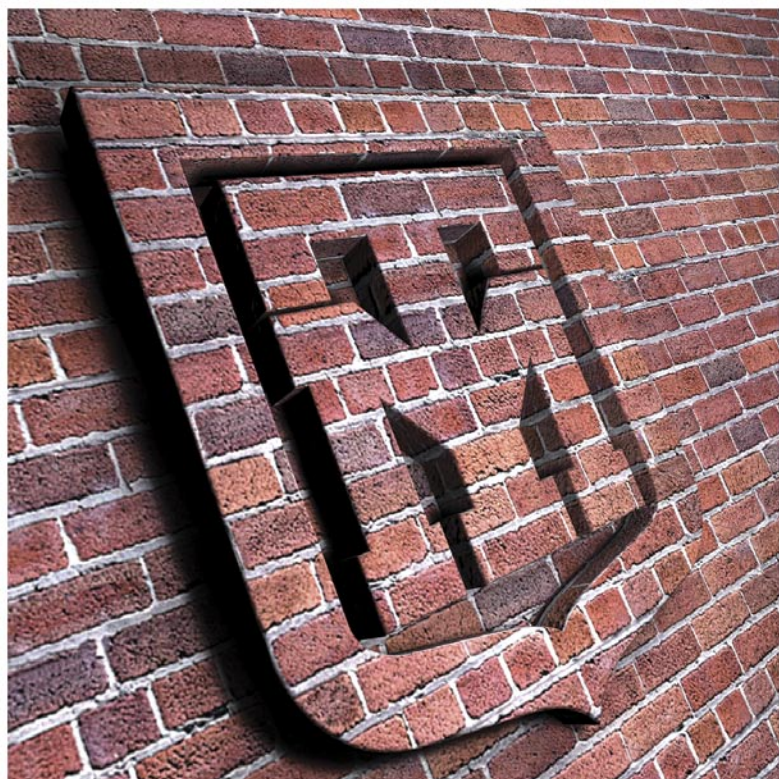
N.a.

Technical data

white	grey
State of aggregation:	
powder	powder
Colour:	
white	grey
Density (kg/l):	
n.a.	n.a.
pH-Value:	
n.a.	n.a.
max. alkali content (% Na ₂ O eq):	
n.a.	n.a.
max. chloride content (%):	
n.a.	n.a.
Colour code:	
n.a.	n.a.
Storage: dry, frost-protected, in closed packaging	
Shelf-life: when stored correctly at least 6 months after date of production.	

Packaging

Sacks, pallets, big bags.



Joint filler water-repellent TM 1 mm grey (5144)
Joint filler water-repellent TM 1 mm white (5145)
Joint filler water-repellent TM 1 mm anthrazit (5146)

Product description

Joint filler water-repellent TM is a high-quality, ready-for-use mortar based on grey or white CEM-I cement. Moreover, the product contains synthetic resins which optimise workability and adhesive strength. Joint filler water-repellent is used for exterior projects. The joint filler will be water-repellent after hardening, thus even driving rain cannot penetrate the joints.

Application

Joint filler water-repellent TM is primarily used outdoors for the jointing of sand-lime stones, facing bricks and clinker.

User instructions

Joint filler water-repellent TM is mixed with water until an earth-moist mortar is obtained. Mixing preferably is done in a compulsory mixer. As Joint filler water-repellent has hydrophobic properties, thorough mixing is very important for the complete intake of the mix water and for obtaining a good consistency. If necessary, the mixing time should be prolonged. The work surface has to be clean and compact. Highly-absorbent surfaces have to be watered before Joint filler water-repellent TM is applied using the appropriate tools. The processing temperature has to be at least 5°C; and the freshly applied joint filler has to be protected from frost.

Consumption

25 kg Joint filler water-repellent TM, prepared with water will yield about 12.5 litre mortar.

Technical data

grey	white	anthrazit
State of aggregation:		
powder	powder	powder
Colour:		
grey	white	anthrazit
Density (kg/l):		
n.a.	n.a.	n.a.
pH-Value:		
n.a.	n.a.	n.a.
max. alkali content (% Na ₂ O eq):		
n.a.	n.a.	n.a.
max. chloride content (%):		
n.a.	n.a.	n.a.
Colour code:		
n.a.	n.a.	n.a.
Storage: dry, frost-protected, in closed packaging		
Shelf-life: when stored correctly at least 6 months after date of production.		

Packaging

Sacks, pallets, big bags.

SPRAY MORTAR TM 8 MM

Product description

Spray mortar TM is a ready-to-use, mineral product consisting of high-quality cement, quartz and aggregate of up to 8 mm. Spray mortar TM also contains additives which enhance the adhesion to the underground and the water retention. Furthermore, the rebound is diminished.

Application

Spray mortar TM is used in redevelopment projects, to secure large areas of rock in tunnelling and mining, and for the lining of construction sites. Spray mortar TM can be processed in wet and dry methods.

User instructions

The work surface has to be inherently stable, and free of all kinds of loose particles or other impurities which might negatively influence the adhesion of the product. If necessary, unfit surfaces have to be sand-blasted or treated with equivalent methods as a pre-treatment. Depending on the purpose, underground, and added amounts of water and accelerator, the mortar can be applied in layers of up to 15cm. The accelerator is added separately, dependent on the spray system used. Suitable accelerators are Accelerator for shotcrete types A and E (Art. No. 1017 and 1018). Additionally, Stabiliser TM MA (Art. No. 8103) could be added to the mortar, to further increase adhesion and workability; and moreover, it will facilitate the finishing of the freshly applied layer. Spray mortar TM can be applied to vertical surfaces as well as overarm.

Consumption

100 kg Spray mortar TM, prepared with water will yield about 50 litres of mortar.

Technical data

- State of aggregation: powder
- Colour: grey
- Density (kg/l): n.a.
- pH-Value: n.a.
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 6 months after date of production

Packaging

Sacks, pallets, big bags.

Product description

Construction mortar TM WATI consists of high-quality cement and silica sand. Synthetic resins added to the product ensure fast strength development, optimise its adhesive strength and the sealing between concrete components. This mortar is highly resistant and therefore suitable to be applied in aggressive environments. Construction mortar TM WATI is used for assembling and repairing concrete components in sewage systems.

Application

Construction mortar TM WATI is used for sealing supplies of sewer pipes and wells, bedding pipe connections and supplies and for assembling and repairing concrete components in civil engineering.

User instructions

Construction mortar TM WATI is to be applied to clean surfaces. Loose particles, grease and oil have to be removed before the application. Approximately 2-3.5 litres of water are added for every 25 kg Construction mortar TM WATI. The mortar is prepared in a mortar mixer until a low-plastic consistency is obtained. Construction mortar TM WATI is not suitable for processing at temperatures lower than 5°C.

Consumption

25 kg Construction Mortar TM WATI prepared with water will yield about 12.5 litres of mortar.

Technical data

- State of aggregation: powder
- Colour: grey
- Density (kg/l): n.a.
- pH-Value: n.a.
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 6 months after date of production

Packaging

Sacks, pallets, big bags.

Remarks

Construction mortar TM WATI is a low-shrink mortar.

Joint casting mortar TM PFM 25-02 grey-brown (5160)
Joint casting mortar TM PFM 25-02 grey (5165)
Joint casting mortar TM PFM 25-02 dark grey (5170)
Joint casting mortar TM PFM 25-01 uncoloured grey (5171)
Joint casting mortar TM PFM 25-01 grey-brown (5176)
Joint casting mortar TM PFM 25-01 grey (5178)

Product description

Joint casting mortar TM PFM is a hydraulic-bound mortar with a good fluidity. It contains additives which improve the adhesion to the surface, elasticity, water tightness and frost resistance. Type 25-01 contains aggregates of a maximum size of 1 mm, type 25-02 contains aggregates of a maximum size of 2 mm.

Application

Joint casting mortar TM PFM is used for jointing natural stone paving, e.g. porphyry, granite, and so on. Joint casting mortar TM PFM 25-01 grey and greyish brown are perfectly suitable for jointing burnt stones. The work surface has to be prepared sufficiently; this goes for new and existent paving. Joint casting mortar TM PFM is part of the TM Joint casting system and has to be used with Curing Compound TM 702 HD 5 (Art. No. 5132). If burnt paving stones have to be jointed, we recommend a treatment of Pre-casting agent TM VGM 700 PFM (Art. No. 5133).

Joint casting mortar TM PFM is resistant:

- to high strain caused by road traffic
- to automated and high-pressure cleaning, and road sweepers
- to de-icing agents, oils and combustibles
- to frost

Joint casting mortar TM PFM offers several advantages:

- cost savings for cleaning
- savings regarding upkeep expenses (replenishment of sand is redundant)
- high long-term quality of the joints, restoring or exchanging the paving is not necessary
- savings made regarding herbicides
- advantages for the environment; due to the high density of the joint casting system, there is no negative impact for the environment as oils, petrol, and so on can hardly penetrate the underground
- if there is a renewal or removal of the paving, the remains are easily recyclable

User instructions

The cleaned work surface has to be free of oil and grease. Joint casting mortar TM PFM is produced in a rotary-drum or compulsory mixer; for every 25kg of mortar, 3.5l of water are added. The mixing takes five minutes. The mortar produced this way is applied to the pre-treated, still slightly wet, surface. After the application, Curing Compound TM 701 HD 5 (Art. No. 5132) is spray-applied and then the whole area is covered with a foil. After the hardening of the mortar, the surface is rinsed at low pressure with a specially developed spraying device to remove excessive material and cement residues. The ideal point of time for the cleaning depends on the environmental temperatures and can be found out in a preliminary test. The joints to be filled should be at least 3.5-4cm in depth and 0.5cm in breadth.

Packaging

Sacks, pallets, big bags.

Consumption

2 kg Joint casting mortar TM PFM 25-01 grey-brown and grey prepared with water will yield about 1 litre mortar. Consumption per m² depends on the type of plaster and the laying pattern, as well as the breadth and depth of the joints.

Technical data

- State of aggregation: powder
- Colour:
 - PFM 25-01 grey-brown: brown
 - PFM 25-02 grey-brown: brown
 - PFM 25-01 grey: anthrazit
 - PFM 25-02 grey: anthrazit
 - PFM 25-01 uncoloured grey: grey
 - PFM 25-02 grey: grey
- Density (kg/l): n.a.
- pH-Value: n.a.
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 6 months after date of production

GROUT TM

Grout TM, Article number:

5201	5202	5203	5204	5206
5212	5213	5215	5218	5219
5220	5221	5222	5223	5224
5228				

Product description

Grout TM consists of high-quality components and exhibits excellent fluidity and high early and final strength. Grout TM can be used to underpour cavities without segregation, if the amount of water is properly adjusted. Even for long processing times, an expansion of 0.1-2.0% is possible due to the controlled and retarded increase in volume. Polymer components added to the product increase the elasticity of the mortar.

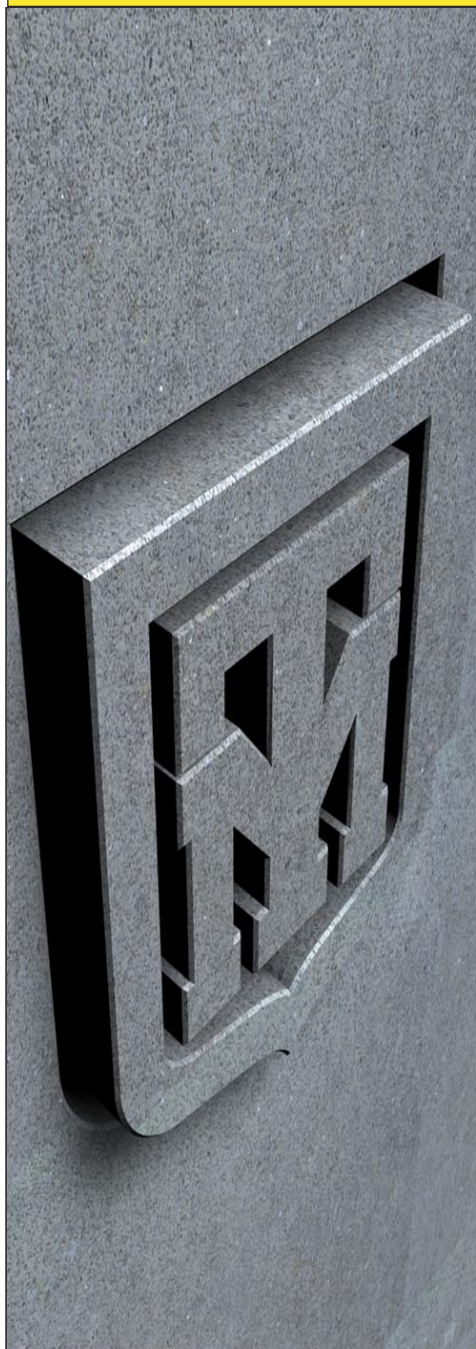
Application

Grout TM is used:

- to underpour machinery, turbines, generators, and other technical devices
- for underpouring bridge bearings and beams as well as concrete columns
- for underpouring prefabricated concrete and steel constructions
- to underpour crane runways, guide rails, e.g. for high-bay warehouses
- for underpouring anchors
- for injecting
- to repair concrete carriageways and roads, and bridges
- for filling drilling core borrow areas and recesses

User instructions

Grout TM is preferably prepared in countercurrent mixers. Small amounts can alternatively be prepared manually. Mixing is done in two steps. Grout TM is added to 2/3 of the mix water and mixed for a short moment. Then the remaining water is added until a processable consistency is obtained. The mixing time is about 4-6 minutes. Cement residues on the surfaces to be treated have to be removed before Grout TM is applied. Moreover, these surfaces have to be clean, i.e. free of grease and oil. The surfaces have to be wetted before the application. To prevent air locks, underpouring is done from one single side. Processing time is about 30 minutes at 20°C. The temperature at which Grout TM is processed should not be less than 5°C and not higher than 30°C.



Yield

100 kg Grout TM prepared with water will yield about 55 litres of mortar.

Technical data

- State of aggregation: powder
- Colour: grey
- Density (kg/l): n.a.
- pH-Value: n.a.
- max. alkali content (% Na_2O -eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 6 months after date of production

Packaging

Sacks, pallets, big bags.

Remarks

A detailed brochure about "Grout and Grouting mortar TM" is available on request.

Grout TM	5201 0,5 mm	5202 1,0 mm	5224 1,0 mm	5223 1,0 mm	5203 2,0 mm K	5219 2,0 mm	5218 2,0 mm
Typical compressive strength (N/mm ²)	K50	K70	K50	K30	K70	K50	K30
Environment class	5 d	5 d	5 d	5 d	5 d	5 d	5 d
Tensile strength (N/mm ²) 24 h	4	6	3	2	6	5	2
Tensile strength 3 days	7	10	4	3	9	6	3
Tensile strength 7 days	9	11	6	5	10	7	6
Tensile strength 28 days	10	12	8	7	12	9	8
Compressive strength (N/mm ²) 24 h	15	35	12	3	65	15	4
Compressive strength 3 days	47	70	30	15	75	40	20
Compressive strength 7 days	50	77	55	35	85	58	38
Compressive strength 28 days	65	90	65	45	99	75	48
Water (l per 25 kg)	3-5	3-5	3-5	3-5	3-5	3-5	3-5
Open time (min. at 20°C)	30	30	30	30	30	30	30
Swelling (%)	0,1-2,0	0,1-2,0	0,1-2,0	0,1-2,0	0,1-2,0	0,1-2,0	0,1-2,0
Slump t=0 / t=30 (mm) 650/600	650/600	750/680	850/825	640/600	640/600	810/575	
Grouting height (mm)	0/10	5/25	5/25	5/25	15/50	15/50	15/50
Grout TM	5206 4,0 mm K	5204 4,0 mm	5221 4,0 mm	5220 4,0 mm	5212 8,0 mm	5213 8,0 mm D	5222 8,0 mm
Typical compressive strength (N/mm ²)	K70	K70	K50	K30	K70	K50	K30
Environment class	5 d	5 d	5 d	5 d	5 d	5 d	5 d
Tensile strength (N/mm ²) 24 h	7	6	5	2	9	7	2
Tensile strength 3 days	10	8	6	3	12	8	4
Tensile strength 7 days	11	10	7	4	13	9	7
Tensile strength 28 days	13	12	9	7	14	10	9
Compressive strength (N/mm ²) 24 h	67	45	20	6	65	40	20
Compressive strength 3 days	80	60	45	25	70	55	32
Compressive strength 7 days	94	80	65	40	84	66	45
Compressive strength 28 days	114	105	80	50	90	75	60
Water (l per 25 kg)	3-5	3-5	3-5	3-5	2-3	2-3	2-3
Open time (min. at 20°C)	30	30	30	30	30	30	30
Swelling (%)	0,1-2,0	0,1-2,0	0,1-2,0	0,1-2,0	0,1-2,0	0,1-2,0	0,1-2,0
Slump t=0 / t=30 (mm) 750/670	800/700	825/780	810/575	600/560	600/560	600/560	
Grouting height (mm)	30/80	30/80	30/80	30/80	>80	>80	>80

All trials are carried out in accordance with "CUR Recommendation 24" and the German "Merkblatt Vergussmörtel". All figures are indicative only and may deviate in practice as a result of, for example, the effect of temperature

Preliminary tests for the product's suitability are indispensable

GROUT TM VB

Product description

Grout TM VB is a shrink-compensated mortar with excellent flow properties. Polypropylene fibres contained in the product increase tensile strength. Grout TM VB is made of CEM-III cement, resulting in an improved chemical resistance of the mortar. Additionally, the quite low water-cement ratio enables the generation of a very tight cement stone. Grout TM VB has several advantages; shrinkage cracks caused by internal strain are prevented, shock resistance is improved, abrasion resistance and durability are increased.

Application

Grout TM VB is used to repair concrete carriageways and roads, bridges and crossovers, to underpour machinery, turbines, generators and pillars in steel construction, to underpour crane runways and safety rails (for example in high-bay warehouses), and to underpour anchors.

User instructions

The underground has to be clean (free of oil and grease) and has to be wetted before Grout TM BV is poured. For every 25 kg of Grout TM BV 3-3.5 litres of water are added. The grout is preferably mixed in a countercurrent or rotary-drum mixer. First, 2/3 of the mix water are thoroughly mixed with the grout. Then the remaining water is added until a processable consistency is obtained. The overall mixing time is about 4-5 minutes. To prevent airlocks during the pouring, the grout should always be poured from one side only.

Yield

100 kg Grout TM VB, prepared with water will yield about 55 litres of mortar.

Technical data

- State of aggregation: powder
- Colour: grey
- Density (kg/l): n.a.
- pH-Value: n.a.
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 6 months after date of production

Packaging

Sacks, pallets, big bags.

GROUT TM BLD-II

Product description

Grout TM BLD-II is a shrink-compensated mortar with a maximum grain size of 4 mm. Grout TM BLD-II has excellent flow properties and a high stability which enables pouring of cavities without segregation or air locks, if the consistency has been properly adjusted. This results in very smooth and nonporous surfaces. Grout TM BLD-II is very similar to Grout TM (Art. No. 5201-5228), except for a slightly lower expansion property and slightly decreased compressive strength. Grout TM BLD-II is free of chlorides and doesn't contain any substances which could cause corrosion. The mortar's consistency during processing is very plastic.

Application

Grout TM BLD-II is applied to produce garden sculptures or grout work in garden and landscape construction, for example to pour tie mounts for fences.

User instructions

For every 25 kg of Grout TM BLD-II approximately 2.5 litres of water are added. The grout is preferably prepared in a countercurrent mixer. Processing has to take place immediately after mixing and the freshly cast grout should be covered with plastic foils. To prevent a premature loss of water after formwork removal, the workpieces should be treated with Curing Compound TM AC-1 (Art. No. 3204) and stored in a room with constant temperatures as the hardening proceeds.

Yield

100 kg Grout TM BLD-II, prepared with water will yield about 55 litres of mortar.

Technical data

- State of aggregation: powder
- Colour: grey
- Density (kg/l): n.a.
- pH-Value: n.a.
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 6 months after date of production

Packaging

Sacks, pallets, big bags.

GROUT TM OVERLAY

Grout TM Overlay 1 mm (5210)
Grout TM Overlay 2 mm (5211)

Product description

Grout TM Overlay is a shrink-compensated mortar with excellent flow properties. For an increase in tensile strength, polypropylene fibres are added to the product. Grout TM Overlay is produced on the basis of CEM-III cement, which results in increased chemical resistance. The low water-cement ratio ensures the formation of very tight cement stone. The properties of Grout TM Overlay are very advantageous; prevention of shrinkage cracks due to internal strain, improved shock resistance, enhanced resistance to abrasion and increased durability.

Application

Grout TM Overlay is used:

- to repair concrete carriageways and roads, bridges and crossovers
- for underpouring machinery, turbines, generators and pillars in steel construction
- for underpouring crane runways and guide rails (e.g. in high-bay warehouses)
- for bedding anchors

User instructions

The underground has to be clean (free of oil and grease) and has to be wetted before Grout TM Overlay is poured. For every 25 kg of Grout TM Overlay 3-3.5 litres of water are added. The grout is preferably mixed in a countercurrent or rotary-drum mixer. First, 2/3 of the mix water are thoroughly mixed with the grout. Then the remaining water is added until a workable consistency is obtained. The overall mixing time is about 4-5 minutes. To prevent airlocks during the pouring, the grout should always be poured from the side.

Yield

100 kg Grout TM Overlay, prepared with water will yield about 55 litres of mortar.

Technical data

- State of aggregation: powder
- Colour: grey
- Density (kg/l): n.a.
- pH-Value: n.a.
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 6 months after date of production

Packaging

Sacks, pallets, big bags.

GROUT TM DSM 8 MM

Grout TM DSM 8 mm (5216)
Grout TM DSM 8 mm fibre-reinforced (5217)

Product description

Grout TM DSM 8 mm is a high-quality shrink-compensated mortar with excellent flow properties. This mortar is also available in a fibre-reinforced version which increases adhesive pull strength. Grout TM DSM 8 mm consists of high-quality cement, polymers, and additives; which cause a growth in volume, a certain elasticity and high early and final strengths.

Application

Grout TM DSM 8 mm is applied:

- for underpouring machinery, turbines, generators and pillars in steel construction
- for underpouring crane runways and guide rails
- to underpour constructional members if high tightness and compressive strength of the mortar are requested

User instructions

Grout TM DSM 8 mm is preferably prepared in a countercurrent or rotary-drum mixer. Mixing is done in two steps. First, 2/3 of the mix water are filled into the mixer, the mortar is added and both are mixed thoroughly. Then, the remaining mix water is added until a workable consistency is obtained. Total mixing time is 4-6 minutes.

Yield

100 kg Grout TM DSM 8 mm, prepared with water will yield about 55 litres of mortar.

Technical data

- State of aggregation: powder
- Colour: grey
- Density (kg/l): n.a.
- pH-Value: n.a.
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 6 months after date of production

Packaging

Sacks, pallets, big bags.



Grout TM V01-70 (5227)
Grout TM V04-70 (5225)
Grout TM V08-70 (5226)

Product description

Grout TM V01-V08 is a high-quality mortar with excellent flow properties. If the processing consistency is adjusted properly, cavities can be poured without segregation. A controlled, retarded growth in volume enables an expansion of 0.1-2.0% , even if the processing time is prolonged. Additionally, a polymer component with a high molecular weight ensures high elasticity. Due to the low water-cement-ratio, the mortar obtains high early and final strengths.

Application

Grout TM V is used:

- to underpour machinery, turbines, generators, and so on
- for underpouring bridge bearings and beams, as well as concrete supports
- for underpouring concrete and steel structures
- to underpour crane runways and guide rails, e.g. in high-bay warehouses
- to pour anchors
- for bedding ducts
- to repair concrete carriageways and roads, as well as bridges
- to fill up drilling core borrow areas and recesses

User instructions

Grout TM V is preferably mixed in a countercurrent or rotary-drum mixer; small amounts can alternatively be mixed manually. Mixing is done in two steps. Grout TM V is added to 2/3 of the mix water; both is mixed thoroughly. Then the remaining water is added until the processing consistency is obtained. The mixing time is about 4-6 minutes. Before Grout TM V is poured, possible cement residues have to be removed. The surface to be treated has to be cleaned and wetted before the application. To prevent air locks, underpouring is done from a side or angle. Processing time is about 30 minutes at 20°C. The temperature at which Grout TM V is processed should not be less than 5°C and not higher than 30°C.



Yield

100 kg Grout TM V, prepared with water will yield about 55 litres of mortar.

Technical data

- State of aggregation: powder
- Colour: grey
- Density (kg/l): n.a.
- pH-Value: n.a.
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 6 months after date of production

Packaging

Sacks, pallets, big bags.

Article number	Strength class	Grain size (mm)
5227	K 70	1.0
5225	K 70	4.0
5226	K 70	8.0

Preliminary tests for the product's suitability are indispensable

Article number 5225 5226 5227

GROUTING MORTAR TM

Grouting mortar TM, Article number:

5401	5402	5403	5404	5405
5406	5407	5408	5409	5410
5411	5412	5413	5414	

Product description

Grouting mortar TM consists of high-quality components which ensure excellent workability and provide for high early and final strengths. Polymers added to the product distribute high adhesive strength, good adhesion to the surface, and high elasticity. Grouting mortar TM is used if the material applied is requested to be highly shrink-compensated. The product is processed in an earth-moist state. However, due to its special properties it can easily be pressed into cavities which makes it perfectly suitable for the assembly of concrete parts and for repairing concrete elements. Grouting mortar TM is free of chlorides and other substances which might cause corrosion and moreover, it is resistant to mineral oils and grease. The mortar's increase in volume is 0.1-2.0% depending on the amount of water added.

Application

Grouting mortar TM is used:

- to underpour machinery, turbines, generators and so on
- for bedding and assembling precast parts
- to repair precast structures
- for filling cavities of all different kinds
- to lay heavy natural stones in garden and landscape construction

User instructions

For every 25 kg of Grouting mortar TM 3-4 litres of water are required. Mixing is preferably done in a countercurrent mixer or in a rotary-drum mixer. Smaller amounts can alternatively be mixed manually. Grouting mortar TM is applied by putty to cleaned, wetted surfaces.

Yield

100 kg Grouting Mortar TM prepared with water will yield about 55 litres of mortar.

Technical data

- State of aggregation: powder
- Colour: grey
- Density (kg/l): n.a.
- pH-Value: n.a.
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 6 months after date of production

Packaging

Sacks, pallets, big bags.

Grouting mortar TM	5401 0,5 mm	5402 1,0 mm	5413 1,0 mm	5412 1,0 mm	5403 2,0 mm	5408 2,0 mm	5407 2,0 mm
Typical compressive strength (N/mm ²)	K50	K70	K50	K30	K70	K50	K30
Environment class	5 d	5 d	5 d	5 d	5 d	5 d	5 d
Tensile strength (N/mm ²) 24 h	5	6	3	2	7	5	2
Tensile strength 3 days	7	8	4	3	9	6	3
Tensile strength 7 days	9	10	6	5	11	7	6
Tensile strength 28 days	11	12	8	7	12	9	8
Compressive strength (N/mm ²) 24 h	13	30	12	3	45	15	4
Compressive strength 3 days	50	65	30	15	65	40	20
Compressive strength 7 days	60	75	55	35	85	58	38
Compressive strength 28 days	65	90	65	45	95	75	48
Water (l per 25 kg)	3-5	3-5	3-5	3-5	3-5	3-5	3-5
Swelling (%)	0,1-2,0	0,1-2,0	0,1-2,0	0,1-2,0	0,1-2,0	0,1-2,0	0,1-2,0
Grouting space height (mm)	0/10	5/20	5/20	5/20	15/40	15/40	15/40
Grouting mortar TM	5404 4,0 mm	5410 4,0 mm	5409 4,0 mm	5405 8,0 mm	5406 8,0 mm D	5411 8,0 mm	
Typical compressive strength (N/mm ²)	K70	K50	K30	K70	K50	K30	
Environment class	5 d	5 d	5 d	5 d	5 d	5 d	
Tensile strength (N/mm ²) 24 h	7	5	2	9	8	2	
Tensile strength 3 days	10	6	3	10	9	4	
Tensile strength 7 days	11	7	4	12	10	6	
Tensile strength 28 days	12	9	7	14	13	9	
Compressive strength (N/mm ²) 24 h	70	20	6	50	45	18	
Compressive strength 3 days	85	45	25	65	55	30	
Compressive strength 7 days	95	65	40	75	70	40	
Compressive strength 28 days	105	80	50	85	85	58	
Water (l per 25 kg)	3-5	3-5	3-5	2-3	2-3	2-3	
Swelling (%)	0,1-2,0	0,1-2,0	0,1-2,0	0,1-2,0	0,1-2,0	0,1-2,0	
Grouting space height (mm)	30/60	30/60	30/60	>60	>60	>60	

All trials are carried out in accordance with "CUR Recommendation 24" and the German "Merkblatt Vergussmörtel". All figures are indicative only and may deviate in practice as a result of, for example, the effect of temperature and water addition.

Preliminary tests for the product's suitability are indispensable

**> 5408 5409 5410 5411 5412
5413 5414**

10.1.2 CEMENT-BOUND REPAIR MORTAR

REPAIR MORTAR TM 92/21

Repair mortar TM 92/21 0.5 mm
(5091)
Repair mortar TM 92/21 2.0 mm
(5138)

Product description

Repair mortar TM 92/21 is a low-shrink mortar based on CEM-I cement and synthetic resins. It is used for various repairs on concrete and precast concrete structures. The maximum grain size of the aggregate is 0.5 mm. Repair mortar TM 92/21 has an excellent adhesiveness which ensures a good bond to the underground. Special compounds in the product provide for good workability.

Application

Repair mortar TM 92/21 is used as a joint filler, for levelling out rock pockets, and for the application of thin levelling courses on floors, walls and pillars. For larger repair work, the mortar should be applied in layers, or sand with a grain size of 0-2 mm should be added.

User instructions

Repair mortar TM 92/21 is mixed with water until the workability requested is obtained. This may take up to 5 litres of water for every 25 kg of Repair mortar TM 92/21. The surface has to be free of grease and of any other loose particles. The area to be repaired is thoroughly wetted before the application, however, excessive water and slops should be wiped off. Application of a bonding bridge is recommended. It can easily be made by mixing 1 part Acrytekt TM (Art. No. 3302) and 1 part of cement (or mortar). Repair mortar TM 92/21 is applied as soon as the bonding bridge becomes matte. After the application, Repair mortar TM 92/21 has to be protected from premature drying by applying Curing Compound TM AC-1 (Art. No. 3204).

Yield

N.a.

Technical data

- State of aggregation: powder
- Colour: grey
- Density (kg/l): n.a.
- pH-Value: n.a.
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 6 months after date of production

Packaging

Sacks, pallets, big bags.

REPAIR MORTAR TM 91/28

Product description

Repair mortar TM 91/28 is made of highly reactive cement and high-temperature dried quartz sand. It is used for repairing precast concrete units which have soon to be put into operation again. Special substances in the product ensure good adhesion to the underground. Moreover, the tightness of the hardened mortar is increased. Multi-layer application is possible.

Application

Repair mortar TM 91/28 is used to repair holes and flaws in concrete carriageways, for bedding manhole covers and drains, as well as for fast repairs of concrete and precast concrete parts.

User instructions

Repair mortar TM 91/28 is mixed with water to prepare earth-moist, or slightly plastic, mortar. Only small amounts should be prepared as the material hardens very fast. Mix thoroughly and apply with a steel trowel. The processing time is about 5 minutes, and the freshly applied repair mortar can be finished about 5 to 10 minutes after the application. Processing and finishing times are highly dependent of the environmental and mortar temperatures. A mixing time of at least 3 minutes has to be observed to ensure the activation of the plasticising components. The concrete surface to be repaired has to be clean, and free of grease and any loose particles. Before the application, the surface has to be wetted. Alternatively, a bonding bridge can be applied, made of 1 part of Acrytekt TM (Art. No. 3302) and 1 part of cement. To prevent the premature drying of the repair layer, which would cause shrinkage cracks, treatment with a curing compound (article group 3200) is necessary.

Yield

1 kg Repair mortar TM 91/28 prepared with water will yield about 0.5 litre Mortar.

Technical data

- State of aggregation: powder
- Colour: grey
- Density (kg/l): n.a.
- pH-Value: n.a.
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 6 months after date of production

Packaging

Sacks, pallets, big bags.

Product description

Repair mortar TM Terrafix PCC is made of high-quality cement and high-temperature dried quartz sand containing a maximum grain of 0.5 mm. The product contains special synthetics which ensure increased adhesion of the mortar on the underground.

Application

Repair mortar TM Terrafix PCC is used to repair precast concrete units and mortars containing Terrament as a binder. Repair mortar TM Terrafix PCC can be applied in layers of up to 40 mm.

User instructions

The surface to be repaired has to be cleaned; loose particles have to be removed before the surface is wetted. Repair mortar TM Terrafix PCC is mixed with water to obtain a plastic mortar which is then applied on the surface with appropriate tools. The product is not suitable to be processed in direct solar radiation.

Yield

N.a.

Technical data

- State of aggregation: powder
- Colour: red-brown
- Density (kg/l): n.a.
- pH-Value: n.a.
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 6 months after date of production

Packaging

Buckets, Sacks.

Remarks

There might be differences in colour between the mortar and the existing surface. Strengths of Repair mortar TM Terrafix PCC when prepared with 4 litres of water for every 25 kg of mortar:

Age when tested	Tensile strength (N/mm ²)	Compressive strength (N/mm ²)
7 Days	4.5	36
28 Days	4.9	40

FIXCEMENT TM

Fixcement TM 78/13 (5101)
 Fixcement TM (5111)
 Fixcement TM 70/85 (5128)

Product description

Fixcement TM is made of highly-reactive cement and high-temperature-dried quartz sand with a maximum grain size of 0.5 mm. Fixcement TM is used for smaller repairs of concrete, if the mortar used is to be rapid-hardening. Special components provide for good adhesion to the surface and for increased water impermeability. Once mixed with water, Fixcement TM hardens in a few minutes.

Application

Fixcement TM is used for minor repairs of precast concrete units, if the mortar used is requested to be rapid-hardening; for sealing leakages and water penetration on walls, mortars and concrete; and for filling cracks in concrete surfaces.

User instructions

Fixcement TM is prepared with water to produce a low-plastic mortar. The mortar is added to the water; both are thoroughly mixed and then the ready mortar is applied using appropriate tools. Only small amounts should be prepared at once, as the hardening is very fast (see Remarks). For repairing surface cracks, these cracks are chiselled out in a v-shape and afterwards filled up with Fixcement TM.

Yield

2 kg Fixcement TM, prepared with water will yield about 1 litre Mortar.

Technical data

- State of aggregation: powder
- Colour: grey
- Density (kg/l): n.a.
- pH-Value: n.a.
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 6 months after date of production

Packaging

Buckets, sacks, pallets.

Remarks

Processing time at 20°C:

Art.nr. 5101	Art.nr. 5111	Art.nr. 5128
30 sec.	5 min.	10 min.
2 min.	25 min.	30 min.

Fair faced concrete repair powder TM (5104)
Fair faced concrete repair powder TM dark (5134)
Fair faced concrete repair powder TM H (5097)

Product description

Fair faced concrete repair powder TM, Fair faced concrete repair powder TM dark (based on high-quality CEM-I cement), and Fair faced concrete repair powder TM H (based on high-quality CEM-III cement) are repair products containing special components which ensure excellent adhesive properties and good workability.

Application

Fair faced concrete repair powder TM is used for finer repair work and levelling out flaws on concrete surfaces. This product is the perfect medium for repairing fair faced concrete surfaces. The choice of different types enables to find an adequate repair medium to match the colour of the existing concrete.

User instructions

The concrete surfaces to be repaired have to be thoroughly cleaned and loose particles have to be removed. The surface has to be wetted before the application. Fair faced concrete repair powder TM is prepared with water to produce a plastic mortar which is then applied using appropriate tools. After the finishing of the fresh surface, the mortar has to be protected from drying up; for example, it could be kept slightly wet. Fair faced concrete repair powder TM is not suitable to be processed in direct solar radiation. After a hardening period of 24 hours, the renewed spaces are roughened up. By using the same cement used for the concrete unit, the colour can be adjusted to match the existing construction unit.

Yield

N.a.

Technical data

- State of aggregation: powder
- Colour:
 - Art.Nr. 5104: grey
 - Art.Nr. 5134: grey
 - Art.Nr. 5097: grey
- Density (kg/l): n.a.
- pH-Value: n.a.
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 6 months after date of production

Packaging

Sacks, pallets, big bags.

Remarks

Used tools can be cleaned with water.

REPAIR MORTAR TM 78/31

Repair mortar TM 78/31 0.5 mm (5105)
Repair mortar TM 78/31 2.0 mm (5136)

Product description

Repair mortar TM 78/31 is a quick setting mortar, made of Portland cement and synthetic resins. Repair mortar TM 78/31 has good adhesive strength, which provides for excellent adhesion even to small surfaces. The product has a remarkable workability. A special component ensures the mortar not to dry up too fast, preventing "burning" of the mortar.

Application

Repair mortar TM 78/31 is used:

- for repairing gravel pockets, battered angles and edges
- for sealing joints and gaps
- for bedding concrete units, sealing cracks in prestressed concrete or the cones of tendons
- to make thin levelling courses on floors, walls and pillars

User instructions

Repair mortar TM 78/31 is mixed with water until the desired workability is reached (about 5.5 litres of water are added for every 25 kg of Repair mortar TM 78/31). The ready mortar is applied to the cleaned, wetted surface with appropriate tools. Loose particles, dirt and other substances which could negatively influence surface adhesion have to be removed before the application. Thin layers of mortar should be protected from premature drying through the application of Curing Compound AC-1 (Art. No. 3204).

Yield

N.a.

Technical data

- State of aggregation: powder
- Colour: grey
- Density (kg/l): n.a.
- pH-Value: n.a.
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 6 months after date of production

Packaging

Sacks, pallets, big bags.

REPAIR MORTAR TM 88/14

Repair mortar TM 88/14 0.5 mm (5108)

Repair mortar TM 88/14 H (5099)

Repair mortar TM 88/14 S2 (5169)

Product description

Repair mortar TM 88/14 consists of high-quality CEM-I cement and quartz sand with a maximum grain size of 0.5 mm; Repair mortar TM 88/14 H is based on high-quality CEM-III cement; Repair mortar TM 88/14 S2 has a shortened processing time of approximately 30 minutes and is used for fast repairs. Synthetic resins are added to all three types to ensure good adhesiveness. Repair mortar TM 88/14 is perfectly suitable for repairing and filling flaws on concrete and mortar units. By intermixing the different types of Repair mortar TM 88/14, the repair mortar can be adjusted in colour to fit the unit to be repaired. Layers applied can be up to 40 mm thick.

Application

Repair mortar TM is used to repair concrete and mortar parts of all kinds, e.g. battered edges and angles; to fill flaws like shrink holes and gravel pockets.



Preliminary tests for the product's suitability are indispensable

**Article number 5108 5099
5169**

User instructions

The surface has to be thoroughly cleaned, loose particles, grease, oils, and any other substances which could negatively influence surface adhesion have to be removed. The surface has to be wetted before the application of the mortar. Depending on the consistency desired, for every 25 kg of Repair mortar TM 88/14 about 4-5 litres of water have to be added. The product is preferably mixed in a rotary-drum or compulsory mixer, smaller amounts can be prepared manually. Mixing time is about 3 minutes; processing time is about 30-45 minutes, depending on the type of product and the temperature. The freshly-treated surfaces should be treated with Curing Compound TM AC-1 (Art. No. 3204) to prevent the repair mortar from premature drying. The product is not suitable to be processed at freezing temperatures.

Strength and shrinkage behaviour of Repair mortar TM 88/14 0.5 mm, Repair mortar TM 88/14 H and Repair mortar TM 88/14 S2 at 20°C if 4.5 litres of water were added for every 25 kg of dry mortar:

		5108	5099
Compressive strength (N/mm ²)	24 hours	22	5
	7 days	38	26
	28 days	47	43
Tensile strength (N/mm ²)	24 hours	5	2
	7 days	6	5
	28 days	8	7
Shrinkage	7 days	-0.1%	-0.1%
	28 days	-0.1%	-0.1%

Yield

100 kg Repair mortar TM 88/14, 88/14 H and 88/14 S2 will yield about 50 litres of ready mortar.

Technical data

- State of aggregation: powder
- Colour: grey
- Density (kg/l): n.a.
- pH-Value: n.a.
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 6 months after date of production

Packaging

Sacks, pallets, big bags.

Remarks

Clean used equipment with water.

Fair faced concrete repair powder TM X (5109)
Fair faced concrete repair powder TM X anthracit (5172)
Fair faced concrete repair powder TM X dark-hued (5159)
Fair faced concrete repair powder TM X anthracit I (5179)
Fair faced concrete repair powder TM X anthracit II (5180)

Product description

Fair faced concrete repair powder TM X is made of high-quality cement and quartz sand. The substances added to the product provide for good adhesion properties. Several different types are available of Fair faced concrete repair powder TM X which are all high-quality products. The only difference between them is that they vary in colour.

Application

Fair faced concrete repair powder TM X is used for executing fast repairs of flaws and faults of all kinds, whether it is a fair faced concrete surface, a battered edge, or a shrink hole in a concrete element. The processing time for all types is about 10 minutes. Fair faced concrete repair powder TM X is therefore perfectly suitable if repair work has to be done fast and if smooth surfaces are requested.

User instructions

The surface to be repaired has to be cleaned from dust, dirt and loose particles, and it has to be wetted before the application. However, if the surface to be repaired is porous, it is recommended to apply a bonding bridge made of 1 part of Acrytekt TM (Art. No. 3302) and 1 part of cement. Fair faced concrete repair powder TM X is prepared with water to obtain a plastic mortar which is then applied to the surface using appropriate tools. As the finishing of this freshly applied surface proceeds, it has to be wetted several times. The product is not suitable to be applied in direct solar radiation. Fair faced concrete repair powder TM X is a fast-setting product, so only mixes which can be processed within the processing period given should be prepared. The processing time can be prolonged by adding approximately 500 gr of Acrytekt (Art. No. 3302) for every 10 kg of Fair faced concrete repair powder TM X. Alternatively, a lean mortar can be made by adding a maximum 10% of dune sand.

Yield

N.a.

Technical data

- State of aggregation: powder
- Colour: grey-black
- Density (kg/l): n.a.
- pH-Value: n.a.
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 6 months after date of production

Packaging

Sacks, pallets, big bags.

Product description

Repair mortar TM B.S.L. consists of cements which are highly water-reactive, and a quartz sand with a maximum aggregate of 0.5 mm. Special components provide for good adhesiveness and water tightness.

Application

Repair mortar TM B.S.L. is used for small repairs in concrete.

User instructions

Repair mortar TM B.S.L. is prepared with water and thoroughly mixed to obtain a low-plastic mortar which is then applied using a steel trowel. The product hardens within a very short period of time, so it is recommended to prepare only those amounts which can be processed during this period. For every 5 kg of Repair mortar TM B.S.L. about 0.8 litres of water are added.

Consumption

2 kg Repair mortar TM B.S.L. prepared with water will yield about 1 litre Mortar.

Technical data

- State of aggregation: Powder
- Colour: grey
- Density (kg/l): n.a.
- pH-Value: n.a.
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): entfällt
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Sacks, pallets, big bags.

Remarks

Test results for compressive and tensile strengths are available on request.

RAPID MORTAR TM 5R

Product description

Rapid mortar TM 5R is produced of a cement with a very high reactivity to water, and quartz sand with a maximum aggregate of 0.4 mm. Special synthetic components provide for good adhesion to the surface. Rapid mortar TM 5R exhibits high strength within a very short period of time.

Application

Rapid mortar TM 5R is used for repairing concrete and concrete units, which have to be back in operation in a short period of time, i.e.:

- repairs of manhole covers and drains in road construction
- assembly of parking meters and road signs

User instructions

Rapid mortar TM 5R is prepared with water until a plastic mortar is obtained. The water is filled into the mixer first, and then Rapid mortar TM 5R is added. For every 25 kg of Rapid mortar TM 5R about 3.75 litres of water are added. Mixing time is about 3 minutes after which the mortar is applied using appropriate tools. The processing time is about 15 minutes at a temperature of 20°C.

Yield

2 kg SchnellMortar TM 5R prepared with water will yield about 1 litre mortar.

Technical data

- State of aggregation: powder
- Colour: grey
- Density (kg/l): n.a.
- pH-Value: n.a.
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 6 months after date of production

Packaging

Sacks, pallets, big bags.



DB FIXMO TM W 15/2

Product description

DB Fixmo TM W 15/2 is a swellable, water impermeable and quick-setting construction mortar. The product is used for small and larger repairs on concrete and brickwork. DB Fixmo TM W 15/2 seals the structure immediately and reliably, due to its expansion as the hardening proceeds. The construction mortar has a good adhesiveness which ensures excellent bond to the underground. The product exhibits a very good workability. Special components in the product prevent the mortar from premature drying and from losing too much to the underground.

Application

DB Fixmo TM W 15/2 is used:

- to directly and permanently seal water intrusions
- to seal water bearing joints
- to fill up drilled holes for anchors

User instructions

DB Fixmo TM W 15/2 is prepared with water until the desired consistency is obtained. When adding about 2.25 litres of water to 15 kg of DB Fixmo TM W 15/2, the construction mortar will have a processing time of about 10 minutes.

Yield

N.a.

Technical data

- State of aggregation: powder
- Colour: grey
- Density (kg/l): n.a.
- pH-Value: n.a.
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 6 months after date of production

Packaging

Sacks, pallets, big bags.

Remarks

Measuring value at 20°C:

	Compressive strength (N/mm ²)	Tensile strength (N/mm ²)	Adhesive pull strength (N/mm ²)	Water intake (g)
1 hour	-	-	-	16
2 hours	-	-	-	17
4 hours	4.0	2.0	0.2	-
7 hours	5.0	2.1	0.3	-
24 hours	10.0	5.0	0.5	18
3 days	15.0	5.1	0.8	18
7 days	30.0	6.1	0.8	18



REPAIR MORTAR TM TERRAQUICK PCC 0.5 MM

Product description

Repair mortar TM Terraquick PCC 0.5 mm consists of high-quality cement and high-temperature dried quartz sand with a maximum aggregate of 0.5 mm. Synthetic resins added to the product provide for an excellent adhesion to the underground. Repair mortar TM Terraquick PCC 0.5 mm is used to repair all kinds of damaged concrete and mortar units based on Terracement.

Application

Repair mortar TM Terraquick PCC 0.5 mm is used:

- to fill gravel pockets in concrete units
- to repair battered angles and edges of concrete units
- to repair damaged mortar surfaces

User instructions

Prior to the application of Repair mortar TM Terraquick PCC 0.5 mm, the surface to be repaired has to be cleaned; grease, oil, and loose particles have to be removed. The next step is to wet the surface. Porous surfaces should be pre-treated with a bonding bridge made of Acrytekt TM (Art. No. 3302). The mortar is prepared with water in an appropriate mixer, in which it is mixed for about 3 minutes. Water is added until the desired consistency is obtained. Freshly repaired surfaces should be protected from premature drying by treating them with Curing Compound TM AC-1 (Art. No. 3204).

Yield

N.a.

Technical data

- State of aggregation: powder
- Colour: red-brown
- Density (kg/l): n.a.
- pH-Value: n.a.
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 6 months after date of production

Packaging

Buckets, sacks, pallets, big bags.

PCC Repair compound TM component A 0,5 mm (5156)
PCC Repair compound TM component A 2,0 mm (5157)
PCC Repair compound TM component B (5155)

Product description

The PCC Repair Compound TM is a two-component polymer-modified repair system. This low-shrink product is cement-bound and contains a maximum grain size of 0.5 to 2 mm. It can be applied to all kinds of concrete and mortar surfaces, and shows excellent adhesive properties even on steel surfaces.

Application

The PCC Repair Compound TM is used to fill anchor holes, to repair flaws in walls and floors, damaged concrete elements and rock pockets. The mortar can be applied in layers of up to 25mm.

User instructions

Clean the surface to be treated and remove loose particles and fats. Apply a bonding bridge made of 1 part of component A and 1 part of component B. Apply the PCC Repair Compound TM wet-on-wet. The PCC Repair Compound TM is prepared by mixing both components. For every 25kg of component A add 3.5-4.5 kg of component B. The product is not suitable to be used at freezing temperatures. 100kg of PCC Repair Compound TM yield about 55 litres of ready mortar. The repaired surfaces can be treated with a spreader or with a piece of wet styrofoam. A treatment with Curing Compound AC-1 (Art. No. 3204) is recommended.

Yield

N.a.

Technical data

component A	component B
State of aggregation:	
powder	liquid
Colour:	
grey	white
Density (kg/l):	
n.a.	n.a.
pH-Value:	
n.a.	n.a.
max. alkali content (% Na ₂ O eq):	
n.a.	n.a.
max. chloride content (%):	
n.a.	n.a.
Colour code:	
n.a.	n.a.
Storage: dry, frost-protected, in closed packaging	
Shelf-life: when stored correctly at least 6 months, after date of production.	

Packaging

Liquid: Cans, barrels, containers, bulk.

Powder: Sacks, pallets, big bags.

SEALING MORTAR TM

Sealing mortar TM 89/62 white (5120)

Sealing mortar TM 89/62 grey (5121)

Sealing mortar TM 89/63 sulphate resisting (5122)

Product description

Sealing mortar TM is a cementitious sealant used for sealing vertical and horizontal surfaces of buildings. There is no difference whether the surface to be sealed consists of concrete, cement facing or of a flush-joint brick wall. Application should take place only after the biggest shrinkage deformations wore off (1-3 months depending on the weather). Sealing mortar TM is perfectly suitable for renovation work as it can be used to seal walls from the inside, which cannot be done with synthetic or bituminous coatings.

Application

Sealing mortar TM is used as a sealant against humidity for cellar walls and the transitions of walls to the floor, retaining walls, foundations and members under similar strain. Sealing mortar TM is especially suitable for swimming pools, baths, shower tubs, wastewater treatment plants and gallery work.

User instructions

Sealing mortar TM is applied, depending on its consistency, by brush, big brush or trowel. If the underground is thoroughly wet, the mortar should be prepared for application by trowel, in any other case a brushable mortar will do. For obtaining good results, at least two layers of Sealing mortar TM should be applied, three are recommended. However, usually two layers, brush-applied, are sufficient. Special attention should be given to the transitions between horizontal and vertical surfaces. Weak spots, such as gravel nests and loose particles have to be repaired before the application. The surface has to be clean and free of grease, as well as it has to be of a certain stability. Extremely smooth surfaces have to be roughened up to increase adhesiveness. The surface is thoroughly wetted, and a bonding bridge, made of 1 part of Acrytekt TM (Art. No. 3302) and 1 part of cement, is applied. Sealing mortar TM is then applied on the still slightly wet bonding bridge. The added amount of water influences the quality of the sealing effect. Sealing mortar TM has to be protected from premature drying due to sun and wind after the application; treating the fresh surface with Curing Compound TM AC-1 (Art. No. 3204) will perfectly fit this purpose. It will take a week until the surfaces treated can fully withstand water strain and until the sealing effect is completely activated.



Dosage

For sealing against soil moisture, consumption will be approximately 3 kg/m²; for sealing against soil moisture about 5 kg/m²; a consistency suitable be by applied by trowel, consumption will be about 8 kg/m².

Technical data

- State of aggregation: powder
- Colour: grey-white
- Density (kg/l): n.a.
- pH-Value: n.a.
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 6 months after date of production

Packaging

Sacks, pallets, big bags.

Remarks

Cement-bound products are not suitable to absorb movements of the underground. Those surfaces which have been treated with Sealing mortar TM, which have to withstand mechanical stresses, are to be protected against shock, impact and abrasion.

Construction mortar TM K005 (5167)
Construction mortar TM K01 (5166)
Construction mortar TM K04 (5161)
Construction mortar TM K08 (5163)

Product description

Construction mortar TM K is a mortar consisting of high-quality binders, aggregates and additives. The added polymers enhance the mortar's adhesiveness and provide for optimised adhesive properties. There are no chlorides, or other substances which might cause corrosion, contained in the product. It is very resistant against grease and mineral oils. Special additives provide for an increase in volume of 0.5–0.8%. Construction mortar TM K gains a very high compressive strength.

Application

Construction mortar TM K is used for bedding and fixing concrete elements and for constructional repair work.

User instructions

For every 25 kg of Construction mortar TM K, 3–4 litres of water are added. Construction mortar TM K is usually prepared in a compulsory mixer, but it is possible to prepare smaller amounts manually or with a handheld mixing device. Construction mortar TM K is processed in an earth-moist state. It is applied to the cleaned surface with appropriate tools.

Consumption

100 kg KonstruktionsMortar TM K prepared with water will yield about 50 litre mortar.

Technical data

- State of aggregation: powder
- Colour: grey
- Density (kg/l): n.a.
- pH-Value: n.a.
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 6 months after date of production

Packaging

Buckets, sacks.

Remarks

Article number	Strength class (N/mm ²)	Grain size (mm)
5167	K 70	0.5
5166	K 70	1.0
5161	K 70	4.0
5163	K 70	8.0

10.1.3 CEMENT-BOUND ADHESIVES

ELEMENT ADHESIVE TM

Product description

Element adhesive TM is a high-quality cement-bound product for jointing concrete units and members of all kinds. Additionally to the special cement type and the high-quality sands, synthetic resins are added to the product to increase its adhesiveness. Moreover, these resins make Element adhesive TM perfectly suitable for a wide variety of applications.

Application

Element adhesive TM is used to fix:

- toppings on walls
- window sills
- concrete units, lightweight concrete units

User instructions

The cleaned surface is sufficiently wetted. Element adhesive TM is mixed with water until a low-plastic mortar is obtained. For every 25 kg approximately 3-3.5 litres of water will be required. The mortar is preferably prepared in a mixer with a high mixing intensity. The product is not suitable to be processed at freezing temperatures.

Yield

100 kg Elementenleim TM prepared with water will yield about 50 litres of mortar.

Technical data

- State of aggregation: powder
- Colour: grey
- Density (kg/l): n.a.
- pH-Value: n.a.
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 6 months after date of production

Packaging

Sacks, pallets, big bags.

Remarks

Element adhesive TM is not subjected to shrinkage once it hardened.



TILE ADHESIVE TM

Tile adhesive TM 83/33 (5103)
 Tile adhesive TM 89/38 (5116)
 Tile adhesive TM 90/31 (5127)

Product description

Tile adhesive TM is a cement-bound product modified with synthetic substances used for installing ceramic facing on walls and floors. The polymers added to Tile adhesive TM provide for excellent adhesive strength and high flexibility. Tile adhesive TM can also be used for fixing natural stones and aerated concrete blocks of all kinds. When working with aerated concrete blocks, the mortar should be a bit more plastic. The only difference between the different types of Tile adhesive TM is the duration of the processing and hardening times. Tile adhesive TM is suitable for interior and exterior use.

Application

Tile adhesive TM is used for:

- laying ceramic facings on walls and floors
- fixing aerated concrete and natural stones

User instructions

Tile adhesive TM is prepared with cold water to obtain a plastic mortar. Smaller batches can be mixed manually whereas a compulsory or rotary-drum mixer is recommended for larger amounts. Tile adhesive TM is applied with a notched trowel. The surface to be treated has to be clean, stable and free of grease; for the application of Tile adhesive TM it may be dry or wet. Porous or highly-absorbent undergrounds should be pre-treated with Acrytekt TM (Art. No. 3302). The product is not suitable to be processed at temperatures of less than 5°C.

Consumption

N.a.

Technical data

- State of aggregation: powder
- Colour: grey
- Density (kg/l): n.a.
- pH-Value: n.a.
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 6 months after date of production

Packaging

Buckets, sacks, pallets.

Remarks

Type of tile adhesive	83/33	89/38	90/31
Processing time	2-3 hours	1-1.5 hours	30-60 min.

Processing times depend on environmental temperature. The high content in polymers gives the mortar flexible properties.

VWS POLYSTYRENE ADHESIVE
TM 282

VWS Polystyrene adhesive TM 282
1.5 mm (5130)
VWS Polystyrene adhesive TM 282
0.5 mm (5147)
VWS Polystyrene adhesive TM 282
0.5 mm White (5158)
VWS Polystyrene adhesive TM 282 L
0.5 mm (5164)

Product description

VWS Polystyrene adhesive TM 282 is a polymer-modified adhesive based on hydraulic binders. The adhesive can be applied to dry and wet surfaces. VWS Polystyrene adhesive TM 282 is a low-shrink product, and remains plastic for a sufficiently long period of time to enable subsequent finishing. VWS Polystyrene adhesive TM 282 L 0.5 mm (Art. No. 5164) offers the longest processing time.

Application

VWS Polystyrene adhesive TM 282 is used to fix heat insulation plates (polystyrene plates) to existing walls for thermal insulation.

User instructions

The wall has to be even and stable, and free of dirt, grease and loose particles. Sanding and highly absorbent walls have to be pre-treated. Unstable plaster, chalking and crumbling paint-work have to be removed. Absorbent cement-based surfaces should be pre-treated with Acrytekt TM (Art. No. 3302). When installing expanded plastic slabs or similar products, the adhesive is applied on the wall in palm-sized spots, smooth rear sides might need to be roughened up.

Depending on strength and weight, the slabs might possibly be secured by using dowels after glueing them to the wall. VWS Polystyrene adhesive TM 282 is not suitable to be applied on gypsum plaster or gypsum plasterboards. The product is not to be processed at temperatures below +5°C or above +25°C. VWS Polystyrene adhesive TM 282 is prepared with water until a workable mortar is obtained which is free of lumps. Minimum mixing time is approximately 5 minutes. After a maturing time of 10-15 minutes, the product is stirred once more and can then be applied within the next 1-2 hours.

Remarks

Standard values VWS Polystyrene adhesive TM 282 at 20°C:

	3 days	7 days	28 days
Compressive strength (N/mm ²)	10.0	12.5	12.5
Tensile strength (N/mm ²)	2.3	2.6	5.5
Adhesive pull strength (N/mm ²)	2.3	2.6	4.0



Yield

50 kg VWS Polystyrolkleber TM 282 prepared with water will yield about 25 litres of mortar.

Technical data

5130	5147	5158	5164
State of aggregation:			
powder	powder	powder	powder
Colour:			
grey	grey	white	grey
Density (kg/l):			
n.a.	n.a.	n.a.	n.a.
pH-Value:			
n.a.	n.a.	n.a.	n.a.
max. alkali content (% Na ₂ O eq):			
n.a.	n.a.	n.a.	n.a.
max. chloride content (%):			
n.a.	n.a.	n.a.	n.a.
Colour code:			
n.a.	n.a.	n.a.	n.a.
Storage: dry, frost-protected, in closed packaging			
Shelf-life: when stored correctly at least 6 months after date of production.			

Packaging

Sacks, pallets, big bags.

Preliminary tests for the product's suitability are indispensable

**Article number 5130 5147
5158 5164**

10.1.4 CEMENT-BOUND ANTI-WEAR MATERIALS

POLYGRID TM

Polygrid TM 1 (5951)
Polygrid TM 2 (5952)

Product description

Polygrid TM 1 and TM 2 are ready-to-use strewable hard materials for the production of abrasion- and wear-proof, as well as resistant, layers of hard materials. Polygrid TM 1 and TM 2 consist of crystalline quartz and other high-quality components. Polygrid TM 1 and TM 2 provide for above-average tensile and compressive strengths and for a very favourable wear index, which will ensure a longer service life of the floor.

Application

Polygrid TM 1 and TM 2 are used wherever concrete floors are desired to be abrasion-proof and resistant. Polygrid TM 1 and TM 2 are suitable for interior and exterior use, in damp rooms, and whenever a floor has to be resistant to highly diversified mechanical strains and stresses. Polygrid TM 1 and TM 2 are perfectly suitable to make hard-material coatings which have to be resistant to de-icing agents, petrol, oil and solvents.

User instructions

Polygrid TM 1 and TM 2 are to be applied on the still slightly wet concrete immediately after it is walkable again. This enables Polygrid TM 1 and TM 2 and the concrete to harden at the same time, which results in an excellent bond of Polygrid TM 1 and TM 2 to the concrete. Concrete treated with Polygrid TM 1 and TM 2 has to correspond to strength class C20/25 (as a minimum).



Preliminary tests for the product's suitability are indispensable

Article number 5951 5952

It has to be observed that the hard material is evenly strewn in; for this purpose, using a spreading device is recommended. Prerequisite for an optimised installation of the hard-material layer is a flawless and even concrete surface. Cement residues on the concrete surface caused by bleeding are to be removed immediately after the wiping of the surface. After the hard material is strewn in and distributed, it is rubbed in and the surface is mechanically smoothed. For this work stage, power trowels have proven their suitability.

Curing

As the installation proceeds, the hard material has to be protected from environmental conditions like sun, wind and rain. After the installation however, premature drying has to be avoided. This can be accomplished by applying Curing Compound TM AC-1 (Art. No. 3204). Under all circumstances, spraying, spreading or pouring of water onto the freshly treated surface has to be prevented.

Dosage

N.a.

Technical data

- State of aggregation: powder
- Colour: grey
- Density (kg/l): n.a.
- pH-Value: n.a.
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 6 months after date of production

Packaging

Sacks, pallets, big bags.



Product description

Polygrid TM 3 is a ready-to-use strew-able hard material for the production of abrasion- and wear-proof, as well as resistant, hard material layers. Polygrid TM 3 contains electrocorundum, crystalline quartz and other high-quality components. The application of Polygrid TM 3 ensures above-average compressive and tensile strengths, and a very advantageous wear index, which results in a longer service life of the floor.

Application

Polygrid TM 3 is used wherever abrasion-proof and resistant concrete floors are desired. Polygrid TM 3 is suitable for interior and exterior use, as well as it can be used in damp rooms. Polygrid TM 3 is the ideal product if the floor is exposed to the most diverse kinds of mechanical stresses and strains. Polygrid TM 3 can be used to produce hard-material layers which are exposed to de-icing salt, petrol, oil and solvents.

User instructions

Polygrid TM 3 is to be applied on the still slightly wet concrete immediately after it is walkable again. This enables Polygrid TM 3 and the concrete to harden at the same time, which results in an excellent bond of Polygrid TM 3 to the concrete. If a concrete surface is to be treated with Polygrid TM 3, it should at least be of a strength class corresponding to C20/25.

Care has to be taken that the hard material is strewn in evenly; using a spreading device for this purpose is recommended. For a professional installation of the hard-material layer the concrete surface is to be faultless and even. Cement residues on the concrete surface caused by bleeding are to be removed immediately after the wiping of the surface. A hard-material layer is applied in one layer only. After the hard material is strewn in and distributed, it is rubbed in and the surface is mechanically smoothed. For this work stage, power trowels have proven their suitability. Joints in the hard-material layer have to be identical in arrangement with joints in the concrete to which it is applied.

Curing

The hard material has to be protected from environmental impacts such as sun, wind, and rain as the installation proceeds. After the installation, premature drying of the freshly applied layer has to be avoided. This can be accomplished by covering the surface with a foil, or by treating it with Curing Compound TM AC-1 (Art. No. 3204). Curing Compound TM AC-1 can be spray-applied or worked in directly. Under all circumstances, spraying, spreading or pouring of water onto the freshly treated surface is to be avoided.

Dosage

N.a.

Technical data

- State of aggregation: powder
- Colour: grey
- Density (kg/l): n.a.
- pH-Value: n.a.
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 6 months after date of production

Packaging

Sacks, pallets, big bags.

Product description

Polygrid TM 51 is a cement-bound, ready-to-use strewable hard material used for the production of abrasion- and wear-proof, and resistant hard-material layers. Polygrid TM 51 contains crystalline quartz and other high-quality components. Polygrid TM 51 ensures above-average compressive and tensile strength, and a very advantageous wear index, which results in a prolonged service life of the floor.

Application

Polygrid TM 51 is used wherever abrasion-proof and resistant concrete floors are desired. Polygrid TM 51 is suitable for interior and exterior use, as well as it can be used in damp rooms. Polygrid TM 51 is the ideal product if the floor is exposed to the most diverse kinds of mechanical stresses and strains. Polygrid TM 51 can be used to produce hard-material layers which are exposed to de-icing salt, petrol, oil and solvents.

User instructions

Due to the high cement content of Polygrid TM 51, subsequently adding more cement is redundant. Polygrid TM 51 is to be applied on the still slightly wet concrete immediately after it is walkable again.

This enables Polygrid TM 51 and the concrete to harden at the same time, which results in an excellent bond of Polygrid TM 51 to the concrete. If a concrete surface is to be treated with Polygrid TM 51, it should at least be of a strength class corresponding to C20/25. Care has to be taken that the hard material is strewn evenly; using a spreading device for this purpose is recommended. For a professional installation of the hard-material layer the concrete surface is to be faultless and even. Cement residues on the concrete surface caused by bleeding are to be removed immediately after the wiping of the surface. A hard-material layer is applied in one layer only. After the hard material is strewn in and distributed, it is rubbed in and the surface is mechanically smoothed. For this work stage, power trowels have proven their suitability. Joints in the hard-material layer have to be identical in arrangement with joints in the concrete to which it is applied.

Curing

The hard material has to be protected from environmental impacts such as sun, wind, and rain as the installation proceeds. After the installation, premature drying of the freshly applied layer has to be avoided. This can be accomplished by spray-applying Curing Compound TM AC-1 (Art. No. 3204). Under all circumstances, spraying, spreading or pouring of water onto the freshly treated surface is to be avoided.

Dosage

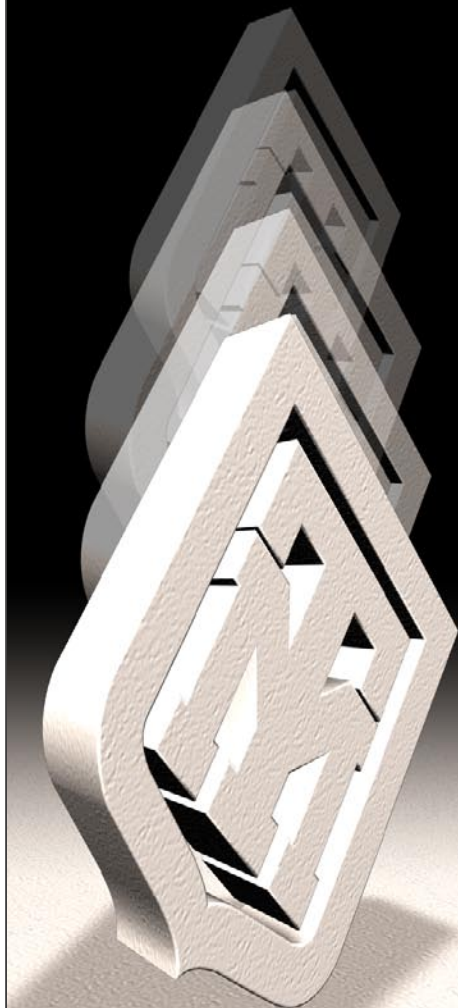
N.a.

Technical data

- State of aggregation: powder
- Colour: grey
- Density (kg/l): n.a.
- pH-Value: n.a.
- max. alkali content (% Na_2O -eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 6 months after date of production

Packaging

Sacks, pallets, big bags.



10.2 EPOXY RESINS

CONSTRUCTION ADHESIVE TM

Construction adhesive TM 17+4 (5106)
Construction adhesive TM 18+4 (5107)

Product description

Construction adhesive TM is a two-component epoxy resin containing quartz sand of up to 0.5 mm. Both components are exactly adjusted to each other. Component A is brown and viscous, component B is colourless and low-viscous. Hardening will start soon after mixing both components. Lay-

ers of up to 5 mm can be applied with Construction adhesive TM 17+4; for layers that are up to 20 mm thick, Construction adhesive TM 18+4 is used.

Application

Construction adhesive TM is used:

- to level out rough concrete surfaces in layers of 1-5 mm
- to fill gaps and cracks in floors, concrete and brickwork and to execute small repairs
- to bed iron bars and structural steel elements in concrete

Chemical resistance of Bauleim TM. Duration of tests in months.	1	2	4	8	12
Water, demineralized	+	+	+	+	+
Sea water	+	+	+	+	
Sulphuric acid 20-70% (H ₂ SO ₄)	+	+	+	+	+
Hydrochloric acid 10-20% (HCl)	+	+	+	+	+
Hydrochloric acid 36% (konz.) (HCl)	+	A	n.r.		
Acetic acid 10%	n.r.				
Sodium hydroxide solution 20% (NaOH)	+	+	+	+	+
Ammonia 10%	+	+	A	n.r.	
Ethanol 50%	+	A	A	A	A
Octyl alcohol 50%	+	+	+	+	+
Acetone	n.r.				
Ethylene glycol	A	A	A		
Butyl acetate	A	A	A	A	A1
Trichloroethylene	A	A	A	A	A1
Benzene	+	+	+	+	+
Xylene	+	+	+	+	+
Oil	+	+	+	+	+
Petrol, combustibles	+	+	+	+	+

+ = resistant

A = is attacked

n.r. = not resistant

A1 = surface becomes soft, regenerates very fast

User instructions

Pre-treating surfaces:

The surface has to be cleaned and cement residues, oil and loose particles have to be removed by sand-blasting or roughening. The surface has to be dry for the application. Component A is thoroughly stirred before component B is added. Then both components are mixed thoroughly. The product is applied and smoothed using appropriate tools. When working with Construction adhesive TM, protective gloves are to be worn. At 20°C, the mixed product has to be processed after 20-30 minutes.

Filling and gluing

Pre-treat surface as instructed. Component A is thoroughly stirred before component B is added. Mix is to be processed directly. For 0.6 litres of adhesive about 1 kg of Construction adhesive TM is required.

Bedding and filling

For every kilo of Construction adhesive TM 1-2 kg of quartz sand are added, until a consistency is obtained with which brick working is possible. In this case, the volume of the mortar will double. The required consistency is determined by the user. The sand is added to component A first, and then component B is added.

Consumption

Depending on the respective surface about 1-1.5 kg are consumed per m².

Technical data

- State of aggregation: comp. A: viscous / comp. B: liquid
- Colour: brown
- Density (kg/l): n.a.
- pH-Value: n.a.
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Tins, buckets.

Remarks

If the surface is sticky after hardening, it can be rinsed with water (add 0.5 l of vinegar for every 10 l of water). Stickiness should then have disappeared. Alternatively, dry quartz sand can be scattered on the surface. When the surface to be treated is vertical, preferably use Construction adhesive TM A+S (Art. No. 5117).

CONSTRUCTION ADHESIVE TM A + S

Product description

Construction adhesive TM A+S is a two-component product consisting of epoxy resin and high-quality quartz sand with a grain size of up to 0.5 mm. Both components, resin and hardener, are perfectly adapted to each other and contained in the product in the ideal proportions. Component A is brown and viscous, component B is low-viscous and transparent. Hardening will start soon after mixing both components.

Application

Construction adhesive TM A+S can be used for a wide variety of applications. The product improves water impermeability as well as the chemical resistance to highly diverse substances (see chart).

Chemical resistance of Bauleim A+S. Duration of tests in months.	1	2	4	8	12
Water, distilled	+	+	+	+	+
Sea water	+	+	+	+	
Sulphuric acid 20-70% (H ₂ SO ₄)	+	+	+	+	+
Hydrochloric acid 10-20% (HCl)	+	+	+	+	+
Hydrochloric acid 36% (konz.) (HCl)	+	A	n.r.		
Acetic acid 10%	n.r.				
Sodium hydroxide solution 20% (NaOH)	+	+	+	+	+
Ammonia 10%	+	+	A	n.r.	
Ethanol 50%	+	A	A	A	A
Octyl alcohol 50%	+	+	+	+	+
Acetone	n.r.				
Ethylene glycol	A	A	A		
Butyl acetate	A	A	A	A	A1
Trichloroethylene	A	A	A	A	A1
Benzene	+	+	+	+	+
Xylene	+	+	+	+	+
Oil	+	+	+	+	+
Petrol, combustibles	+	+	+	+	+

+ = resistant

A = is attacked

n.r. = not resistant

A1 = surface becomes soft, regenerates very fast

Construction adhesive TMA+S can be used as a bonding bridge for smooth materials (e.g. steel), for repair work, or for bedding steel anchors and iron bars in concrete. Moreover, it can be used for levelling rough vertical concrete surfaces.

User instructions

The surface has to be cleaned and cement residues, oil and loose particles have to be removed by sandblasting or roughening. The surface has to be dry for the application of Construction adhesive TM A+S. Component B is added to component A. Then both components are thoroughly mixed. The product is applied and smoothed using appropriate tools. When working with Construction adhesive TM A+S, protective gloves are to be worn. At 20°C, the mixed product has to be processed after 20-30 minutes.

Consumption

N.a.

Technical data

- State of aggregation: Comp. A viscous / Comp. B liquid
- Colour: Comp. A brown / Comp. B colourless, transparent
- Density (kg/l): n.a.
- pH-Value: n.a.
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 6 months after date of production

Packaging

Tins, buckets.

Remarks

If the surface is sticky after hardening, it can be rinsed with water (add 0.5 l of vinegar for every 10 l of water). Stickiness should then have disappeared. If a rough and textured surface is desired instead of the smooth one obtained, dry quartz sand can be scattered on the surface after applying Construction adhesive TM A+S.

EPOXY RESIN TM (2-COMPONENT)

Product description

Epoxy resin TM is a two-component epoxy resin consisting of the components A+B. Both components, resin and hardener, are perfectly adapted to each other and contained in the product in the ideal proportions. Component A is brown and viscous, component B is low-viscous and transparent. Hardening will start soon after mixing both components.

Application

Epoxy resin TM is used:

- as a primary coat on porous surfaces and as a pre-treatment for the application of Construction adhesive TM 17+4 (Art. No. 5106)
- for filling cracks and for executing small repairs on concrete
- for bedding anchors and iron rods in concrete

Chemical resistance of Epoxidharz TM (2-component). Duration of tests in months.	1	2	4	8	12
Water, de-ionized	+	+	+	+	+
Sea water	+	+	+	+	+
Sulphuric acid 20-70% (H ₂ SO ₄)	+	+	+	+	+
Hydrochloric acid 10-20% (HCl)	+	+	+	+	+
Hydrochloric acid 36% (konz.) (HCl)	+	A	n.r.		
Acetic acid 10%	n.r.				
Sodium hydroxide solution 20% (NaOH)	+	+	+	+	+
Ammonia 10%	+	+	A	n.r.	
Ethanol 50%	+	A	A	A	A
Octyl alcohol 50%	+	+	+	+	+
Acetone	n.r.				
Ethylene glycol	A	A	A		
Butyl acetate	A	A	A	A	A1
Trichloroethylene	A	A	A	A	A1
Benzene	+	+	+	+	+
Xylene	+	+	+	+	+
Oil	+	+	+	+	+
Petrol, combustibles	+	+	+	+	+

+ = resistant

A = is attacked

n.r. = not resistant

A1 = surface becomes soft, regenerates very fast

User instructions

The surface has to be cleaned and cement residues, oil and loose particles have to be removed by sandblasting or roughening. The surface has to be dry for the application of Epoxy resin TM. Both components are thoroughly mixed until no internal waviness remains. Then Epoxy resin TM is applied by brush or roller, excessive material should be removed with a steel trowel. When working on vertical surfaces, Epoxy resin TM is applied with a small roller with a fine structure to avoid runs. When using Epoxy resin TM, protective gloves are to be worn. At 20°C, the mixed product has to be processed after 20-30 minutes.

Consumption

Depending on the surface, consumption is about 1-1.5 kg/m², when applied to smooth surfaces or very thinly up to 3 m².

Technical data

- State of aggregation: Comp. A viscous / Comp. B liquid
- Colour: colourless
- Density (kg/l): n.a.
- pH-Value: n.a.
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Tins, buckets.

Remarks

If the surface is sticky after hardening, it can be rinsed with water (add 0.5 l of vinegar for every 10 l of water). Stickiness should then have disappeared. If a rough and textured surface is desired instead of the smooth one obtained, dry quartz sand can be scattered on the surface after applying Epoxy resin TM.

EPOXY MORTAR TM GREY

Product description

Epoxy mortar TM Grey is a solvent-free 3-component mortar based on epoxy resin. All components are accurately adjusted to each other. Component A light grey powder; component B light brown and viscous; component C transparent liquid. After mixing all components, hardening will rapidly start following the processing time.

Application

Epoxy mortar TM Grey is used:

- for the small- and large-area adhesion of all kinds of construction materials like for example steel, concrete, natural stones, ceramics, wood and synthetic materials,
- for repairs on concrete and precast concrete units
- for filling cracks etc.

User instructions

Before the application, all surfaces have to be dry and intact/stable, free of grease and dust, as well as free of loose particles or other dirt which could act as a separating layer. Metallic surfaces must be entirely free of rust. The mortar is prepared directly in the related packaging as follows: Component B is added to component A, and then mixed to obtain a homogeneous mass. Then component C is added. The mixture is mixed until a homogeneous, paste-like mass is obtained, which is then processed as fast as possible.

Consumption

N.a.

Technical data

- State of aggregation: Comp. A powder / Comp. B viscous / Comp. C liquid
- Colour: Comp. A grey / Comp. B brown / Comp. C colourless
- Density (kg/l): n.a.
- pH-Value: n.a.
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Buckets.

EPOXY MORTAR TM EP2

Product description

Epoxy mortar TM EP2 is a solvent-free three-component mortar based on epoxy resin. The components are perfectly adapted to each other; component A is a light-grey powder, component B is light-brown and viscous, and component C is colourless and low-viscous. Once the components are mixed, hardening sets in very soon.

Application

Epoxy mortar TM EP2 is used for glueing together construction materials of all kinds, as there are steel, concrete, natural stone, ceramics, wood and synthetic materials. It can further be used for repairing damaged concrete surfaces and members, e.g. for filling cracks, gaps, and holes; surfaces can be evened out and levelled.

User instructions

Before Epoxy mortar TM EP2 grey is applied, the surfaces have to be stable, dry, dust-free, and cleaned of any loose particles, oil, grease and any other dirt which could negatively influence adhesion. The surfaces have to be pre-treated if necessary. The mortar can be prepared in the delivered packaging. Component B is added to component A, both are thoroughly mixed. Then, component C is added. Mixing goes on, until a pasty, homogeneous mixture is obtained. Mixing is preferably executed with a mechanical mixing device. Used equipment should as soon as possible, preferably immediately, be cleaned with a solvent-containing cleaning agent. The temperature of the surface to be treated should not be less than 7°C. Epoxy mortar TM EP2 is preferably applied with a toothed putty (toothing 1-5 mm). When glueing together concrete members, these should be pressed together and fixed for 24 hours at a concrete temperature of approximately 20°C.

Consumption

N.a.

Technical data

- State of aggregation: Comp. A powder / Comp. B viscous / Comp. C liquid
- Colour: Comp. A grey / Comp. B brown / Comp. C colourless
- Density (kg/l): n.a.
- pH-Value: n.a.
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Delivered in packaging of a nominal capacity of 5 kg, components B+C in separate packaging. The components are delivered in exact mixing proportions.

11.1 PRESERVATIVE AND IMPREGNATING AGENTS

IMPREX TM

Product description

Imprex TM is used to impregnate and seal wooden formwork. After the application of Imprex TM, an elastic film is formed which prevents cement water from penetrating the wood. The treated parts should be left to dry for 36 hours, and can then be treated with formwork oil. Imprex TM forms a flexible layer which remains on the wooden underground even when its dry and when the wood works.

Application

Imprex TM is used to seal untreated wooden formwork to prevent intake of water. The structure of the wood is not affected.

User instructions

Imprex TM is thinly applied using a big brush or roller.

Coverage

1 Litre Imprex TM is sufficient for about 5-10 m².

Technical data

- State of aggregation: liquid
- Colour: yellow
- Density (kg/l): 0.92
- pH-Value: n.a.
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

Remarks

Provide for good aeration, no open flames.

FLUATE TM

Product description

Fluate TM increases the chemical resistance of concrete members. When applying Fluate TM, the free lime generated during the hydration process, in the near-surface areas of the concrete is transformed into insoluble fluorine compounds (calcium fluoride).

Application

Fluate TM is applied on concrete walls and floors:

- to increase the resistance to acids, bases, oils, and so on
- to improve the wear resistance of the surface
- to produce dust-free surfaces
- for sealing the capillaries

User instructions

The surface has to be free of dust and grease. Fluate TM is mixed with water in a ratio of 1:1 and applied on the surface. About 3 hours later a second, undiluted layer is applied.

Coverage

1 Litre Fluat TM is sufficient for about ca. 3-5 m², depending on the porosity of the surface.

Technical data

- State of aggregation: liquid
- Colour: colourless
- Density (kg/l): 1.11
- pH-Value: 2.0
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

Remarks

When working with Fluate TM, protective goggles and gloves have to be worn. In the case of spatters in eyes or on skin, they are to be rinsed with boric water. Metal and glass have to be covered to prevent any contact with Fluate TM, as it attacks these materials.

PURGA TM

Product description

Purga TM consists of dissolved polyurethanes and is applied to concrete structures and floors to prevent them from dusting. A thin elastic and glossy film layer is generated as the solvent contained in the product evaporates.

Application

Purga TM is used in garages and factory buildings. The floors exhibit increased resistance to diesel, petrol, acids, alkaline solutions, grease and oils after being treated with Purga TM as its chemical and wear resistances are improved.

User instructions

The surface has to be clean, and free of dust and grease. Purga TM is richly applied to the dry surface by big brush or roller until the whole area is covered. Depending on the porosity of the surface, a second treatment might be necessary (after 24 hours). To increase adhesiveness, the layers are applied thinly.

Consumption

Depending on the surface consumption is about 1 litre for 3-5 m².

Technical data

- State of aggregation: liquid
- Colour: transparent
- Density (kg/l): 0.92
- pH-Value: 6.0
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

Remarks

When working with Purga TM, protective goggles and gloves have to be worn. In the case of spatters in eyes or on skin, they are to be rinsed with boric water. Provide for good aeration during the application; no open flames, no smoking.

Product description

Poroseal TM R-1 is a water-reducing admixture which allows to reduce the water-cement ratio while the workability remains constant. This results in a tighter and smoother surface structure, in an improved wear resistance and in the prevention of efflorescence. Special components in the admixture intensify and enhance the coloration of coloured concrete.

Application

Poroseal TM R-1 is used:

- for the production of concrete products and paving stones
- to increase the compactness of earth-moist concrete
- to reduce efflorescence on earth-moist concrete
- for reducing the water-cement ratio of earth-moist concrete while workability is constant
- for increasing chemical resistance

Dosage

- Min. dosage: 0.2% of the cement weight.
- Max. dosage: 0.35% of the cement weight.
- Method of adding and point of time: preferably added directly after the mix water.

Technical data

- State of aggregation: liquid
- Colour: brown
- Density (kg/l): 1.01
- pH-Value: 10.0
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): 0.1
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

Silko TM 40 (6107)
 Silikonat TM (6108)
 Silko Top TM RA (6113)
 Silko TM RA (6114)
 Silko 40 TM RA (6115)

Product description

Impregnating agents TM are based on silicone resins with special properties. One side of the molecules in this resins bonds to the underground, while the other side is water-repellent. This effect is used to make stone-like materials water-repellent without influencing the water vapour permeability. These products also prevent the formation of moss and algae.

User instructions

Impregnating agents TM are thinly applied to the dry surface with a big brush or by spraying. The surface should be saturated, and special care should be taken of the joints. Silko TM is applied in two layers. If the treated surface is highly absorbent, a third application might be necessary. Silko TM 40, Silko 40 TM RA and Silikonat TM can be applied to wet surfaces as well. Silikonat TM leaves a white, wax-like layer on coloured stones after drying.

Coverage

The treatment with this product cannot be repeated. Coverage is:

Silko TM 40: 1 litre per 2-5 m²
 Silikonat TM: 1 litre per 5-10 m²
 Silko Top TM RA: 1 litre per 5-8 m²
 Silko TM RA: 1 litre per 5-8 m²
 Silkon 40 TM RA: 1 litre per 2-5 m²

Technical data

6107	6108	6113	6114	6115
State of aggregation:				
liquid	liquid	liquid	liquid	liquid
Colour:				
colourless	colourless	colourless	colourless	colourless
Density (kg/l):				
0.79	1.04	0.79	0.79	0.79
pH-Value:				
6.0	13.0	6.5	6.0	6.0
max. alkali content (% Na ₂ O eq):				
n.a.	n.a.	n.a.	n.a.	n.a.
max. chloride content (%):				
n.a.	n.a.	n.a.	n.a.	n.a.
Colour code:				
n.a.	n.a.	n.a.	n.a.	n.a.
Storage: dry, frost-protected, in closed packaging				
Shelf-life: when stored correctly at least 1 year, after date of production.				

Packaging

Tins, Cans, barrels, containers, bulk.

Application

Impregnating agents TM can be applied to the following materials, applicability given for every product.

	Silko TM RA	Silko TM 40 Silko 40 TM RA	Silikonat TM	Silko Top TM RA
Concrete	+	+	+	
Roof tiles				+
Plaster	+	+	(+)	(+)
Aerated concrete	+	+	+	+
Sand-lime stone	+	+		
Lightweight concrete	+		+	+
Mortar	+	+	(+)	(+)
Natural stone	+	+	(+)	(+)
Tiles	+	+	+	+
Gypsum boards			+	+
Bricks	+	+		

+ = suitable

(+) = less suitable

Remarks

Impregnating agents TM are suitable for exterior use only. All materials other than stone-like materials, like window frames, glass and so on, are to be covered before the application. No open flames, provide for sufficient aeration.

IMPREX TM ID

Product description

Imprex TM ID is a colourless admixture used for impregnating natural stone, concrete, mortar and brickwork without negatively influencing water vapour permeability. The surface of natural stones is stabilised, formation of algae and efflorescence is largely reduced. Moreover, Imprex TM ID increases the frost resistance of the treated materials and improves their appearance.

Application

Imprex TM ID can be applied to the following surfaces:

- concrete
- roof tiles
- mortar
- natural stone
- lightweight concrete

User instructions

Imprex TM ID brush- or spray-applied. The surface should be saturated. The product can be applied to existent concrete structures. However, to increase the frost-thaw resistance, Imprex TM ID has to be applied to the freshly cast concrete.

Consumption

Standard values on freshly cast concrete: 250 g/m². On natural stone (2 applications): 200-400 g/m². On highly absorbent surfaces: up to 500 g/m².

Technical data

- State of aggregation: liquid
- Colour: colourless
- Density (kg/l): 1.03
- pH-Value: 8.0
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

SILO COATING TM

Product description

Silo coating TM is an asphaltic bitumen dissolved in solvents. It is used as a water- and weather-resistant protective coating. The product will be dry and firm only a few hours after application. Silo coating TM generates a protective, watertight top layer on the treated surface. This prevents the penetration of aggressive ground water and humic acid as well as it prevents the formation of algae and mould.

Application

Silo coating TM is used as a bonding bridge on bitumen or bituminous construction materials. It is an excellent adhesive for bonding fine aggregate and for gluing bitumen sheeting when covering roofs. It protects concrete, brickwork, wood, iron, and steel (for which the application of several layers is recommended). Additionally, it can be used as an exterior finish of mangers and steel walls, and so on.

User instructions

Silo coating TM is applied with a big brush or roller, preferably in several layers. If necessary, the product can be thinned down with turpentine.

Consumption

1 kg of Silo coating TM covers about 4 m² of concrete and about 10 m² of steel.

Technical data

- State of aggregation: viscous
- Colour: black
- Density (kg/l): n.a.
- pH-Value: n.a.
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Tins, Cans, barrels, containers, bulk.

Chemical resistance of Silolack TM:	Concentration	30°C	65°C
Sulphuric acid (H ₂ SO ₄)	25%	+	+
Nitric acid (HNO ₃)	10%	+	
Hydrochloric acid (HCl)	25%	+	+
Lactic acid		+	+
Citric acid		+	+
Tartaric acid	25%	+	+
Formic acid	40%	+	
Acetic acid	25%	+	+
Butyric acid		-	-
Oleic acid		-	-
Oxalic acid		+	+
Benzene		+	
Phenol		-	-
Potassium (KOH)		+	
Sodium hydroxide solution (NaOH)		+	
Ammonia water (NH ₄ OH)		+	+
Aniline		-	-
Drinking water		+	+
Beer		+	
Sugar		+	+
Soap suds		+	+
Wastewater		+	

+ resistant

- not resistant

FLEXCOAT TM

Product description

Flexcoat TM is a bituminous rubber emulsion which forms a flexible layer after the application. Thus, if the layer formed is thick enough, it can even bridge shrinkage cracks. The layer formed is watertight and resistant to all kinds of chemical attacks that might occur. Flexcoat TM exhibits good adhesion to brickwork, concrete, wood, zinc, steel, paper, and bituminous surfaces.

Application

Flexcoat TM is used:

- for sealing against ground water in building construction and civil engineering
- for sealing balconies and terraces
- to seal cracks and joints in concrete
- for sealing fertilizer silos, and so on

User instructions

Stir well before usage. Flexcoat TM is applied to the clean, dry and stable surface using a brush, roller, or big brush. Joints in brickwork have to be completely filled. The packaging is to be kept closed. The product is not suitable to be processed at temperatures of less than +5°C.

Consumption

Depending on the surface, consumption is about 1.5-3.0 kg/m².

Technical data

- State of aggregation: viscous
- Colour: black
- Density (kg/l): 1.03
- pH-Value: n.a.
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Tins, cans, barrels, containers, bulk.

Remarks

Used equipment can be cleaned with water; if the product is already dry, the use of turpentine or petroleum ether is recommended.

12.1 CLEANING AND MAINTENANCE AGENTS

MIXER PROTECTOR TM

Product description

Mixer protector TM prevents the adhesion of concrete and mortar components on construction equipment. Using Mixer protector TM notably prolongs the service life of concrete mixers and other equipment. Mixer protector TM is also adequate to treat scaffolding and working platforms, which might be stained by cement paste.

Application

Mixer protector TM can be applied easily and fast and enables problem-free cleaning of the treated devices. Thus there are economies in time and money. Mixer protector TM can be applied on wet surfaces. Its formula not only prevents cement paste from sticking to surfaces, but also water from being taken in. Therefore, it prevents the generation of rust on the equipment to be protected.

User instructions

Mixer protector TM is applied to the surfaces by spraying or with a big brush. Mixer protector can be applied to wet surfaces.

Coverage

N.a.

Technical data

- State of aggregation: liquid
- Colour: yellow
- Density (kg/l): 0.83
- pH-Value: n.a.
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

Product description

Brick cleaning agent TM consists of acidic, dissolved phosphate salts and is used for removing efflorescence.

Application

Brick cleaning agent TM is used to remove efflorescence from:

- concrete surfaces
- brickwork
- clinker fronts
- bricks
- paving stones
- natural stone

Brick cleaning agent TM is not suitable for the removal of gypsum stains.

User instructions

The surface is saturated with water. Brick cleaning agent TM is mixed with water in a ratio of 1:1. Thoroughly rub the efflorescence with a brush applying this solution, and then allow it to react for 15 minutes after which the solution is rinsed off with water. Tenacious stains might need a second application. Polished and calcareous rock, as well as metals, have to be protected from any contact with Brick cleaning agent TM.

Coverage

Depending on the surface, 1 litre of the diluted Brick cleaning agent TM covers about 3-5 m².

Technical data

- State of aggregation: liquid
- Colour: yellow
- Density (kg/l): 1.12
- pH-Value: 1.1
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

Remarks

When working with Brick cleaning agent TM, protective gloves and goggles are to be worn. Spatters on the skin can be rinsed with water, spatters in the eyes are rinsed with boric water.

Product description

Concrete solvent TM is used to remove concrete stains, lime mortar and cement stains and residues. The product doesn't contain hydrochloric acid.

Application

Concrete solvent TM is used for:

- construction machines
- scaffolding
- formwork
- equipment and tools
- concrete mixers
- mixer trucks

User instructions

Concrete solvent TM is applied on the concrete stains using a brush, big brush or a spraying device. Depending on the condition of the stains, the product is allowed to react for a shorter or longer period. For tenacious stains, a second treatment is recommended. After the removal of the stains, the treated surface is abundantly rinsed with water.

Dosage

N.a.

Technical data

- State of aggregation: liquid
- Colour: yellow
- Density (kg/l): 1.10
- pH-Value: 1.0
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

Remarks

When applying Concrete solvent TM, protective gloves and goggles are to be worn.



CONCRETE DILUENT TM

Product description

Concrete diluent TM is an excellent product for cleaning construction equipment, machinery and tools which are used to produce and transport concrete and mortar and might be stained by cement- and lime-bound construction materials. Concrete diluent TM can also be used to make a solution for dipping applications.

Application

Concrete diluent TM is used to clean:

- construction machines
- scaffolding
- formwork
- tools

User instructions

Concrete diluent TM is sprayed or brushed onto the objects to be cleaned. The product is allowed to react depending on the condition of the stains. For tenacious stains, a second treatment is recommended. After the stains are removed, the treated surfaces have to be thoroughly rinsed with water. As soon as the treated objects are dry, they should be treated with Preservation agent TM (Art. No. 3107) for longer waiting times, or Anti-concrete adhesive TM (Art. No. 7110) to prevent and reduce renewed staining.

Dosage

N.a.

Technical data

- State of aggregation: liquid
- Colour: yellow
- Density (kg/l): 1.14
- pH-Value: 1.0
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

Remarks

When working with Concrete diluent TM, protective gloves and goggles are to be worn.

RUST REMOVER TM

Product description

Rust remover TM is a ready-to-use product based on oxygen-reducing acids. Rust remover TM is used to remove rust from iron and steel. After the product has been allowed to react for a while, it forms a passive layer which protects the metal from further generation of rust for a certain period of time.

Application

Rust remover TM is used to remove rust from:

- steel formwork
- iron slabs
- iron equipment and tools, and so on

User instructions

Rust remover TM is applied using a big brush and is then allowed to react for several hours; subsequently, the objects are rinsed with water. For tenacious rust stains, the treatment should be repeated until the objects are free of rust. To obtain a long-lasting protection against the formation of rust, the cleaned objects should be treated with Preservation agent TM (Art. No. 3107).

Dosage

N.a.

Technical data

- State of aggregation: liquid
- Colour: yellow
- Density (kg/l): 1.21
- pH-Value: 1.0
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

Remarks

For removing rust stains from concrete surfaces, apply Concrete rust remover TM 72/17 (Art. No. 7116).

TILE CLEANER TM

Product description

Tile cleaner TM is used to remove cement residues which remain after the laying and jointing of tiles. The product can also be used to remove lime residues from wall and floor tiles.

Application

Tile cleaner TM is used for:

- cleaning wall and floor tiles
- removing lime residues from water taps, and so on

User instructions

Tile cleaner TM is sprayed onto the cement or lime residues, rubbed in and allowed to react for about 5 minutes. The surface should then be rinsed with water. If this is not possible, the surface is treated with a slightly wet cloth or an appropriate rubber wiper several times. Repeated treatment might be necessary for heavily stained areas.

Dosage

N.a.

Technical data

- State of aggregation: liquid
- Colour: transparent yellow
- Density (kg/l): 1.06
- pH-Value: 1.0
- max. alkali content (% Na_2O -eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

Remarks

When working with Tile cleaner TM, protective gloves and goggles are to be worn. The product is not suitable for calcareous natural stones, as for example marble. Objects like floor covering and furniture should be covered before the application.

MIXER CLEANER TM

Product description

Mixer cleaner TM is applied for cleaning and maintaining machinery and construction equipment used for the production and transport of concrete and mortar. The product doesn't contain hydrochloric acid.

Application

Mixer cleaner TM is used for the cleaning and maintenance of:

- the exterior and mixer drum of truck mixers
- machines and equipment used for concrete and mortar production
- concrete pumps, and so on

User instructions

Depending on the degree of soiling, Mixer cleaner TM can be used in full strength or diluted with water in a ratio of 1:5. Mixer cleaner TM, or the dilution, is applied to the objects to be cleaned with a soft broom or a brush after which they are rinsed with water. Treatment of the cleaned objects with Mixer protector TM (Art. No. 3118) or Anti-concrete adhesive (Art. No. 7110) prevents the renewed adhesion of concrete.

Dosage

N.a.

Technical data

- State of aggregation: liquid
- Colour: colourless
- Density (kg/l): 1.06
- pH-Value: 1.0
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

BIOCIDE TM

Product description

Biocide TM is a liquid product for the treatment of surfaces which are soiled by algae or mould. Biocide TM chemically impacts on the stains and loosens them from the surface.

Application

Biocide TM is used for the treatment of:

- concrete and mortar surfaces
- stones and plasters
- pavings
- masonry and brickwork
- boardwalks and wooden garden furniture

User instructions

The surface is wetted before the application of Biocide TM, which is then applied and allowed to react for about 1 hour after which it is rinsed off with water. The treatment is to be repeated for tenacious stains. Highly porous surfaces can additionally be brushed with an appropriate brush. Usage of a pressure washer is possible and would result in an improved penetration effect. Moreover, Biocide TM holds impregnating properties which prevent the renewed formation of "green" soiling for a long time. Biocide TM can be thinned down with water up to a ratio of 1:3.

Dosage

N.a.

Technical data

- State of aggregation: liquid
- Colour: colourless
- Density (kg/l): 1.12
- pH-Value: 1.0
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

Remarks

Biocide TM mustn't get into contact with surrounding vegetation during the application.

OIL SOLVENT TM

Product description

Oil solvent TM removes grease and oil stains from cement-bound construction materials and stones within a short period of time. The product's different components act on the oil and grease particles and emulsify them, which means that they can easily be removed with water. The product doesn't contain acids and therefore doesn't attack the surfaces to which it is applied.

Application

Oil solvent TM is used for cleaning:

- concrete and mortar surfaces
- tiles and roof tiles
- pavings
- natural stones like porphyry and granite

User instructions

Oil solvent TM is applied with a big brush or a roller onto the dry surface which is then thoroughly brushed. After brushing, the solvent is allowed to react (don't let it dry). Then the surface is thoroughly rinsed with water. For tenacious stains, the treatment can be repeated; however, the surface has to be dry again before another application. Exterior use preferred.

Consumption

1 Litre of Oil solvent TM is sufficient for 3-5 m².

Technical data

- State of aggregation: liquid
- Colour: yellow
- Density (kg/l): 0.9
- pH-Value: n.a.
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

Remarks

When used for interior projects, good aeration has to be provided.

Product description

Anti-concrete adhesive TM prevents concrete and mortar from sticking to construction equipment. The service life of the treated objects is remarkably prolonged through the application of Anti-concrete adhesive TM. It is also possible to treat scaffolding and working platforms which are exposed to cement paste and might be stained. Application of the product is fast and easy and enables problem-free cleaning of the treated objects which results in savings of time and labour costs. Anti-concrete adhesive TM can even be applied to slightly wet surfaces.

Application

Anti-concrete adhesive TM is used to protect:

- concrete and mortar mixers
- concrete pumps
- power trowels
- concrete and transport buckets
- equipment, scaffolding and working platforms

User instructions

Anti-concrete adhesive TM is applied to the cleaned surface by using a big brush or a spraying-device. The product can be applied on dry and slightly wet surfaces.

Dosage

N.a.

Technical data

- State of aggregation: liquid
- Colour: white
- Density (kg/l): 0.93
- pH-Value: n.a.
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 6 months after date of production

Packaging

Cans, barrels, containers, bulk.



OIL FOR MIXERS TM 87/11

Product description

Oil for mixers TM 87/11 prevents concrete and mortar from sticking to metallic surfaces. Furthermore, it reduces rust generation. The product protects construction equipment and machinery used for the production and processing of concrete and mortar and which might be stained by these cement-bound materials. Oil for mixers TM 87/11 is used preventively and thereby enables faster and better cleaning of production equipment. The product is suitable for interior and exterior use.

Application

Oil for mixers TM 87/11 is used to minimise cleaning efforts for:

- mixers and mixing equipment
- concrete pumps
- power trowels
- concreting and transport buckets

User instructions

Oil for mixers TM 87/11 is applied with a big brush or a spraying-device. Before the application, the surfaces have to be cleaned, i.e. free of concrete and mortar droppings and cement residues. Possibly, the desired effects are clearly visible only after several treatments, for example if the soiling is especially tenacious or if there are older stains.

Dosage

N.a.

Technical data

- State of aggregation: liquid
- Colour: transparent yellow
- Density (kg/l): 0.83
- pH-Value: n.a.
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

Remarks

Oil for mixers TM 87/11 is not suitable for rubber-lined mixers.

EXTERIOR WALL CLEANER TM

Product description

Exterior wall cleaner TM is a product for removing soiling and deposits from facades which were rendered unsightly by environmental influences. The colour of surfaces treated with Exterior wall cleaner TM becomes more intensive again. Moreover, the product removes cement residues and efflorescence from walls, bricks, and so on.

Application

Exterior wall cleaner TM is used for cleaning:

- facades
- masonry
- cement-bound plaster mortar

User instructions

Exterior wall cleaner TM is thinned down with water in a ratio of 1:4. The facade to be treated has to be thoroughly wetted before the thinned down facade cleaner is applied by brush or big brush or by using a spraying device. After having been allowed to react for about 15 minutes, the surface is brushed or scrubbed and then intensively rinsed with water. A trial application on a hidden spot of the respective surface is recommended. The treatment can be repeated for tenacious stains.

Dosage

N.a.

Technical data

- State of aggregation: liquid
- Colour: transparent yellow
- Density (kg/l): 1.1
- pH-Value: 1.0
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

Remarks

When working with Exterior wall cleaner TM, protective gloves and goggles are to be worn. Spatters in the eyes or on the skin are immediately to be rinsed off with much water. Exterior wall cleaner TM is not suitable for treating calciferous natural stone, e.g. marble.

DEGREASER TM

Product description

Degreaser TM is a product for cleaning oil- and grease-stained surfaces.

Application

Degreaser TM is mainly used for cleaning:

- metal surfaces of all kinds
- construction equipment
- tools
- steel formwork

User instructions

Degreaser TM is applied with a big brush. A piece of cloth is taken to thoroughly wipe the treated surfaces and to remove excessive material. The treatment has to be repeated for tenacious stains.

Dosage

N.a.

Technical data

- State of aggregation: liquid
- Colour: colourless
- Density (kg/l): 0.9
- pH-Value: n.a.
- max. alkali content (% Na_2O -eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

Remarks

When working with this product, protective clothing is to be worn. Provide for good aeration, no open flames.

WIDOL TM

Product description

Widol TM is a special product which prevents concrete and mortar from sticking to metal surfaces. Additives in the product reduce corrosion. Widol TM is primarily used to protect metal objects which might be stained by cement-bound construction materials.

Application

Widol TM is used to prevent concrete and mortar from sticking to:

- tools, power trowels
- concrete mixing plants, truck mixers
- scaffolding
- concrete pumps, and so on

User instructions

Widol TM is brush- or spray-applied to the cleaned surface. The product can be thinned down with water in a ratio of 1:1.

Dosage

N.a.

Technical data

- State of aggregation: liquid
- Colour: yellow
- Density (kg/l): 0.84
- pH-Value: n.a.
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

Product description

Concrete rust remover TM 72/17 is a ready-to-use product based on oxygen-reducing acids. Rust residues and stains on concrete and concrete structures caused by rusty formwork or other rusty metal parts, can be removed with this product.

Application

Concrete rust remover TM 72/17 is used to remove rust stains from:

- concrete and concrete precast elements
- mortar surfaces
- tiles, and so on

User instructions

The surface to be treated is wetted before the application of Concrete rust remover TM 72/17. The product is applied with a big brush and is then allowed to react for 20 minutes. Additional brushing is possible before the surface is rinsed with water. Treatment is to be repeated for tenacious stains.

Consumption

Depending on the degree of staining, consumption is about 1 litre for an area of 3-5 m².

Technical data

- State of aggregation: liquid
- Colour: colourless
- Density (kg/l): 1.08
- pH-Value: 7.0
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

13.1 STABILISERS

STABILISER TM 74/125

Product description

Stabiliser TM 74/125 is a powdery, chloride-free admixture used for the production of underwater and lightweight concrete and for stabilising superplasticised concrete. Used in underwater concrete, Stabiliser TM 74/125 prevents the fine particles of the concrete from being washed out during casting. When used in lightweight concrete or masonry mortar with porous aggregate, the product reduces the subsequent intake of water of the lightweight aggregate and thus enables workability to remain constant. The lightweight aggregate is prevented from floating during the compaction of concrete and mortar. Superplasticised concrete is stabilised by adding Stabiliser TM 74/125 which results in better pump ability.

Application

Stabiliser TM 74/125 is used for the production of concrete for underwater use and for securing embankments; for the production of lightweight concrete and masonry mortar; for stabilising superplasticised concrete; to reduce the floating of lightweight aggregate during compaction.

Dosage

- Min. dosage: 4-5 kg/m³ Beton
- Max Dosage: n.a.
- Method of adding and point of time: added to the aggregates

Technical data

- State of aggregation: powder
- Colour: grey
- Density (kg/l): 0.82
- pH-Value: n.a.
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): 0.1
- Colour code: violett
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Sacks, pallets, big bags.

STABILISER TM MA-8

Product description

Stabiliser TM MA-8 is a stabiliser in powder form based on high-quality ingredients of natural origin. Stabiliser TM MA-8 improves the quality of the mortar by increasing its water retention and workability as well as its adhesion to the underground. The mortar is better prevented from drying. Moreover, the product stabilises the air pores contained in the mortar.

Application

Stabiliser TM MA-8 is perfectly suitable for the production of lightweight concrete, as well as cement- and cement-lime-bound mortar.

User instructions

Stabiliser TM MA-8 is added to the dry mortar. After 1 minute of mixing, water and plasticiser are added until the desired consistency is obtained. The processed mortar is to be protected from premature drying by thorough curing.

Dosage

- Min. dosage: 600-700 g/m³
- Max. dosage: n.a.
- Method of adding and point of time: der trockenen Mischung zugeben

Technical data

- State of aggregation: powder
- Colour: white
- Density (kg/l): n.a.
- pH-Value: n.a.
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: violett
- Storage: dry, frost-protected, in closed packaging
- Haltbarkeit: bei sachgemäßer Lagerung mindestens 1Jahr nach Produktionsdatum

Packaging

Buckets, sacks, pallets.

STABILISER TM MA

Product description

Stabiliser TM MA is a high-quality admixture used to give special properties to plaster and masonry mortar. Stabiliser TM MA increases the water retention of the mortar which improves cohesion and prevents bleeding and premature drying. Workability is increased through better homogeneity. Stabiliser TM MA provides for high adhesive strength and thus for good adhesion to the underground. The product's special components allow the application of thinner layers which makes the mortar more economic as a larger surface can be covered. Moreover, Stabiliser TM MA allows to reduce the amount of cement added and makes adding lime redundant. If the mortar is properly composed, applied and cured, Stabiliser TM MA prevents the formation of cracks. For curing, a treatment with Curing compound TM AC-1 (Art. No. 3204) is recommended.

Application

Stabiliser TM MA is used for the production of:

- cement mortar
- plaster and masonry mortar
- spray mortar and grout
- lightweight mortar

Dosage

- Min. dosage: 0.25% of the cement weight.
- Max. dosage: n.a..
- Method of adding and point of time: preferably added to the dry mortar, mixed at least 1 minute; desired consistency is obtained by adjusting the amount of added water

Technical data

- State of aggregation: powder
- Colour: white
- Density (kg/l): 0.4
- pH-Value: n.a.
- max. alkali content (% Na_2O -eq): n.a.
- max. chloride content (%): 0.1
- Colour code: violett
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Tins, buckets, sacks, pallets.

STABILISER TM S

Product description

Stabiliser TM S is a powdery stabiliser used to optimise the properties of lightweight and masonry mortar. Stabiliser TM S improves the workability and coherence of the mortar, water retention is increased. Added air pores are stabilised, adhesion to the surface is increased while premature drying of the mortar is prevented.

Application

Stabiliser TM S is used for:

- the production of lightweight masonry mortar
- the production of cement- and cement-lime-bound masonry mortar

Dosage

- Min. dosage: 0.4% of the binder weight
- Max. dosage: n.a.
- Method of adding and point of time: added to the dry mortar, mixed for at least one minute; consistency obtained by adjusting the added water

Technical data

- State of aggregation: powder
- Colour: grey-brown
- Density (kg/l): 0.88
- pH-Value: n.a.
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: violett
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Buckets, sacks, pallets.

Product description

VI-RE Compound TM 1100 is a stabiliser for underwater concrete. VI-RE Compound TM 1100 is a powder admixture that, when added to fresh concrete, reduces to a minimum the quantity of the finer particles that might be washed out of the cement while the casting is done underwater. All demands, as stated in the CUR 18 (colloidal concrete) and in the regulations on underwater concrete, are met by adding VI-RE Compound TM 1100 as this product causes a viscous/pasty coherence of the concrete and a stable, long-lasting consistency.

Application

VI-RE Compound TM 1100 can be added to reinforced and non-reinforced concrete, as well as it can be used to coter quarry stones as a bank reinforcement. It can be used for dike construction according to any given regulation, for example it can be used to produce concrete dike toppings according to common standards. If dosage and mix design are adjusted, there are also other possible fields of application, e.g. with swelling clay (Lytag), or inclined planes, or downward slopes. Casting of underwater concrete can be executed following common methods, e.g. concrete pumps or buckets. Finally, casting can be executed above or beneath the water line and in running or motionless waters.

Dosage

- Min. dosage: 2.5 kg/m³
- Max. dosage: n.a.
- Method of adding and point of time: preferably added to the aggregates or to the ready mix

Technical data

- State of aggregation: powder
- Colour: white
- Density (kg/l): 0.86
- pH-Value: n.a.
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): 0.1
- Colour code: red
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Sacks, pallets, big bags.

Remarks

A detailed brochure and further information on the mix design and test and measurement results are available on request.

STABILISER TM MA-10

Product description

Stabiliser TM MA-10 is a highly effective, powdery admixture used in many different kinds of mortar. Stabiliser TM MA-10 is highly concentrated and thus retains its excellent effects even at low dosages. It increases water retention and adhesion to the surface, and it stabilises the air pores contained.

Application

Stabiliser TM MA-10 is used for the production of:

- lightweight concrete, e.g. with Lia-por aggregate
- cement- and cement-lime-bound mortar

Dosage

- Min. dosage: 100-200 g/m³
- Max. dosage: n.a.
- Method of adding and point of time: preferably added to the ready mix, which is then mixed again for another minute

Technical data

- State of aggregation: powder
- Colour: white
- Density (kg/l): n.a.
- pH-Value: n.a.
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): 0.1
- Colour code: violett
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Buckets, sacks, pallets.

Product description

Stabiliser TM Stabex 100 is a liquid admixture which improves the coherence and workability of the fresh concrete while considerably reducing bleeding and segregation. Stabiliser TM Stabex 100 is used whenever stability and homogeneity of the concrete are important. The pumpability of the concrete is increased. Usage in aerated lightweight concrete has also proved favourable.

Application

Stabiliser TM Stabex 100 is used:

- to stabilise aerated lightweight concrete
- for stabilising superplasticised concrete, e.g. self-compacting concrete
- to stabilise concrete with a low cement content

Dosage

- Min. dosage: 0.5% of the cement weight
- Max. dosage: 1.2% of the cement weight
- Method of adding and point of time: preferably added to the last partial amount of mix water, or to the ready mix

Technical data

- State of aggregation: liquid
- Colour: green
- Density (kg/l): 1.01
- pH-Value: 8.0
- max. alkali content (% Na₂O-eq): 0.1
- max. chloride content (%): 0.1
- Colour code: violett
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

Remarks

Subsequent addition of water may increase air content.

14.1 MISCELLANEOUS

INJEX TM MV

Product description

Injex TM MV is a ready-to-use, chloride-free admixture which causes an increase in volume of concrete and mortar due to its chemical reactions with the cement components. Directly after mixing the cement or mortar, a slow expansion begins, and is only stopped by the setting process. Due to its modified ingredients bleeding is prevented while the content of mix water may be reduced. Injex TM MV remarkably increases the adhesive strength and provides for high final strength. Moreover, prestressing rods and cables are protected from corrosion.

Application

Injex TM MV is used:

- for the production of injection mortar for filling prestressing cuts (sheathing)
- for filling cavities
- for the production of non-shrink concrete for the rebuilding of foundations

User instructions

Standard values for 20°C:

- 0.2% of the cement weight for an increase in volume of 0.3%
- 0.4% of the cement weight for an increase in volume of 0.6%
- 0.6% of the cement weight for an increase in volume of 0.8%
- 1.0% of the cement weight for an increase in volume of 1-2%

Dosage

- Min. dosage: 0.2% of the cement weight
- Max. dosage: 1.0% of the cement weight
- Method of adding and point of time: preferably added to the aggregates; added to the cement for filling prestressing cuts

Technical data

- State of aggregation: powder
- Colour: grey
- Density (kg/l): 0.99
- pH-Value: n.a.
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): 0.1
- Colour code: white
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 6 months after date of production

Packaging

Sacks, pallets, big bags.

Remarks

The increase in volume depends on the amount of mix water, temperature, and reactivity of the cement. The increase in volume will be less at temperatures lower than 10°C.

FLEXTEX 55 TM

Product description

Flextex 55 TM is a special liquid added to cement-bound mortar which is used to grout open asphalt concrete. Flextex 55 TM chemically reacts with the minerals in the cement. The cement stone generated forms an unbreakable bond with the asphalt concrete. Flextex 55 TM is a suitable addition for the filling of asphalt concrete exposed to oil, petrol, kerosene, and the like.

Application

Flextex 55 TM is used for:

- platforms
- air fields
- parking spaces
- bus stops
- roads

Dosage

- Min. dosage: 125 kg/m³
- Max. dosage: n.a.
- Method of adding and point of time: added to the ready mix

Technical data

- State of aggregation: liquid
- Colour: white
- Density (kg/l): 1.07
- pH-Value: 8.0
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 6 months after date of production

Packaging

Cans, barrels, containers, bulk.



FLEXTEX 58 TM

Flextex 58 TM con. 31% (8202)
 Flextex 58L TM con. 31% (8203)
 Flextex 58L TM con. 15% (8204)
 Flextex 58L TM con. 21% (8205)

Product description

Flextex 58 TM synthetic-modified product used in two-component repair systems. The product can also be used for the production of watertight mortar and for improving the chemical resistance. Flextex 58 TM can be diluted or not when added to mortar. Mortar produced with Flextex 58 TM has an exceptional adhesion to smooth surfaces (e.g. steel sheets), which enables a wide variety of possible applications.

Application

Flextex 58 TM is used as a metering component in two-component repair systems; for the production of mortar layers for steel bulges; for the production of water-impermeable mortar or an increased resistance against chemical effects; as a bonding bridge, undiluted or mixed with cement in a ratio of 1:1.

User instructions

- Flextex 58 TM as a bonding bridge on clean, dust-free surfaces; applied with a smooth broom or a big brush; the mortar is applied as soon as the primer is dry to the touch
- Flextex 58 TM as a bonding bridge and/or sealing agent added to sand-cement mortar in a proportion of 1-4% of the cement weight
- Flextex 58 TM added in full strength to two-component repair systems
- Flextex 58 TM as a primer mixed with cement in a ratio of 1:1

Dosage

N.a.

Technical data

- State of aggregation: liquid
- Colour: white
- Density (kg/l): n.a.
- pH-Value: n.a.
- max. alkali content (% Na₂O eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 6 months after date of production

Packaging

Cans, barrels, containers, bulk.

Remarks

Flextex 58L TM is also available as a type with a longer processing time, Flextex 58 L TM 9Art. No. 8203).

Product description

Concrete anti-freeze TM protects concrete from frost impact at outdoor temperatures of -5°C. The product is added to the mix water, which reduces the freezing point of the water. As soon as the temperature of the fresh concrete reaches +5°C cement hydration begins, despite the low outdoor temperature. The concrete has to be protected from further heat loss, e.g. with the use of insulating foils. Concrete anti-freeze TM is free of chlorides which means it can be added to reinforced and plain concrete and mortar. All possible measures have to be taken to ensure fast hardening of the concrete. If necessary, the water-cement ratio should be reduced while a cement of a better quality is to be used.

Application

Concrete anti-freeze TM is:

- used to protect fresh concrete and mortar from frost impact
- spray-applied to frosted and snow-covered reinforcements
- spray-applied to frozen formwork
- spray-applied to band-conveyors and covers
- spray-applied to the loading areas of skip lorries

Dosage

- Min. dosage: 1.0% of the cement weight bis -2°C
- Max. dosage: 1.5% of the cement weight bis -5°C
- Method of adding and point of time: preferably added directly after the mix water

Technical data

- State of aggregation: liquid
- Colour: brown
- Density (kg/l): 1.04
- pH-Value: 4.25
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): 0.1
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

Product description

Grindaïd TM II is a high-performance product added during the grinding of cement and slag sand. Grindaïd TM II prevents the agglomeration and the static charge of the basematerials during the grinding process. Grindaïd TM II enhances the grindability of cement. Compared to other grinding aids, better Blaine values are obtained for the same grinding period at equal dosages. Thus, the residence time in the mill can be reduced, implying increased efficiency and a higher production of cement per hour. The increase in productivity depends, among others, on the clinker to be ground, the type of mill, the mill temperature and the cement class desired. As a rule, the increase in productivity is higher for cement classes 42.5 and 52.5 than for cements of lower strength classes. Grindaïd TM II is particularly suitable for the grinding of CEM-III cements. However, a distinct increase in production can also be obtained for CEM-I and CEM-II cements. Cement properties, as for example the water requirement of the cement, are positively influenced. Depending on the base material, Grindaïd TM II can be used to enhance initial strength development without influencing final strengths. Brown staining, which is frequently caused by the use of other grinding aids, didn't occur up to now. Grindaïd TM II doesn't promote corrosion on reinforcing steel (according to DIN V 18988).



Application

Grindaid TM II is used to:

- enhance the intensity during grinding of cement and slag sand
- increase Blaine values for equal grinding periods
- increase production
- enhance initial strengths
- limit final strengths
- prevent brown staining of the cement
- reduce the water requirement of the cement
- save energy during the grinding process

Dosage

- Min. dosage: 0.01% of the material to be ground
- Max. dosage: 0.06% of the material to be ground
- Method of adding and point of time: during the grinding, drip or spay continuously onto the clinker

Technical data

- State of aggregation: liquid
- Colour: transparent
- Density (kg/l): 1.12
- pH-Value: 9.6
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): n.a.
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Containers, bulk.

CORREX TM

Product description

Correx TM is a ready-to-use admixture for concrete and mortar and protects these from corrosion caused by chlorides. Correx TM can be used for prestressed or reinforced concrete. Usually, the alkaline properties of concrete provide a good protection of the reinforcing steel. If this protective layer is damaged by chlorides, Correx TM restores the protection. The durability of the reinforced concrete is thus prolonged considerably. The protective effect of Correx TM depends on the dosage and on the technological aspects of the concrete. Correx TM accelerates the hardening of concrete. If an accelerated hardening is unrequested, a concrete retarder can be added. Correx TM can be used in combination with other admixtures; however, dosage and addition should be carried out separately. Correx TM can be used with all commercially available types of cement.

Application

Correx TM is used to protect reinforced concrete from corrosion and thus to prolong its durability. Correx TM is used wherever prestressed or reinforced concrete is exposed to chlorides. The use of Correx TM is especially suitable in environments with a high proportion of chlorides or if chloride-containing materials are used. Correx TM is used in harbour areas, car parking roofs close to seawater or if chlorides are added to the concrete.

Dosage

- Min. dosage: 5 kg/m³
- Max. dosage: 35 kg/m³
- Method of adding and point of time: preferably added to the mix water or to the aggregates. The mix water is reduced by the amount of the product added.

Technical data

- State of aggregation: liquid
- Colour: brown
- Density (kg/l): 1.29
- pH-Value: 9.0
- max. alkali content (% Na₂O-eq): n.a.
- max. chloride content (%): 0.1
- Colour code: n.a.
- Storage: dry, frost-protected, in closed packaging
- Shelf-life: when stored correctly at least 1 year, after date of production

Packaging

Cans, barrels, containers, bulk.

15.1 GENERAL TERMS AND CONDITIONS OF SALE

General terms and conditions of sale
private company with limited liability
Chemische Bouwstoffen Tillman B.V.

Applicability

1.1 These General Terms and Conditions are applicable to all our offers and sales agreements pertaining to movables.

1.2 These General Terms and Conditions can only be deviated from in writing.

1.3 Not applicable are the Buyer's general terms and conditions, with whatever description.

Offers

2.1 All our verbal and written offers are without obligation unless the offer explicitly proves otherwise.

2.2 The information given in our price list and all other documentation and etceteras is subject to changes and is not binding, unless this information was agreed to by the parties in writing.

2.3 Slight differences in the technical specifications given by us, and in colours, weights, measurements and etceteras, considered to be acceptable and hardly unavoidable in trade, are accepted.

Orders

3.1 Our Agreement with the Buyer is concluded when we confirmed the instructions in writing by mail or fax message within eight days after receiving the instruction for delivery, or when commencing to carry out the instruction forthwith after consultation with the Buyer, in which case the Agreement is concluded verbally on the day that we accepted the instructions.

3.2 Verbal promises by, and agreements with, our employees do not bind us, unless and as far as these promises are confirmed by us in writing.

Quotations

4.1 Our quotations are given net ex work Megchelen (NL) in the agreed currency, including packaging except for the pallets and containers, excluding VAT [BTW] unless otherwise agreed to in writing.

4.2 Our quotations are based on the cost price current at the time of the offer. Should one or more cost-price factors increase after the date of the offer, we are entitled to increase the agreed price accordingly.

Packaging

5.1 The mode of packaging is determined by us. Packaging is taken back only if the packaging was separately invoiced by us. If the invoiced packaging is returned to us carriage paid and in proper condition, the charged amount will be credited.

5.2 If it was agreed to with the Buyer that packaging is done in packaging material that we lent to the Buyer, this material is charged to the Buyer against cost price if it is not returned to our warehouse at Megchelen (NL) in proper condition, empty and cleaned. If the afore-mentioned packaging material was indeed returned to us but not carriage free, nor in proper condition or empty and cleaned, we are entitled to decide whether the packaging material is returned to the Buyer at his expense, or to recover the costs and/or damages incurred to us by failure in the Buyer's performance.

Quantum Reservation

6.1 For ordering goods that cannot be supplied from stock and which are manufactured only in certain standard quantities, weights or measurements, we retain the right to supply, contrary to the ordered goods, with a deviation of at the most 10% more or less on both sides.

Delivery Time

7.1 The delivery times are given approximately and do not bind us. However, we shall make all reasonable efforts to realize the delivery on or within the given delivery time.

7.2 The delivery time takes effect as soon as we have accepted the instructions and have received full information and all that the Buyer must pay in advance as per Agreement.

7.3 We are always entitled to deliver in parts.

7.4 As soon as we have knowledge of facts and/or circumstances that make it impossible to realize the delivering on or within the agreed delivery time, we shall notify the Buyer about this as soon as possible while stating the new delivery time.

7.5 If the inability of compliance even continues after the new delivery time set by us, the Buyer is entitled to give notice of default and to set a deadline; and if the default continues, the Buyer has the right to dissolve the Agreement promptly without us or the Buyer being obliged to pay any damages, unless there is an intentional act or omission, or gross negligence by one of the parties.

Shipping

8.1 At the Buyer's request, we can deliver the goods at a destination specified by the Buyer, in which case the transportation is carried out by us or a carrier appointed a carrier when he gave the instructions.

8.2 We are not liable for any loss or damage suffered by the Buyer or third parties during or due to the delivery, unless it is proven that the loss or damage is the result of an intentional act or omission or gross negligence by us.

Risk and property

9.1 As soon as the goods have been delivered by us ex works Megchelen (NL) or have left our warehouse for being transported to the Buyer, the goods are at the Buyer's risk.

9.2 Should any damage and/or shortage or defect be found at the time of the delivery, the Buyer is obliged to report this damage or this shortage or defect forthwith to the carrier and inform us about it in writing.

9.3 If the Buyer does not take delivery of the goods, we will store the goods at the Buyer's expense and risk while notifying the Buyer, without prejudicing our right to dissolve the Agreement but while retaining our entitlement to compensation.

9.4 The title to the goods is transferred to the Buyer only after the Buyer has paid the purchase price and all that is owed to us by virtue of the Purchase Agreement, as well as our claim on account of any breach of contract.

Payments

10.1 Payment of our invoice shall take place within 30 days after the invoice date, at our office or by deposit or transfer to our bank account.

10.2 If delivery is made in parts we are entitled to invoice the Buyer with each partial delivery separately, and to demand payment.

10.3 We are entitled to deliver C.O.D. (cash/collect on delivery). If the C.O.D.-sent parcel is refused, the Buyer is obliged to compensate all cost arising from this if the buyer was advised by us beforehand that the goods were to be sent cash on delivery.

10.4 If the Buyer's creditworthiness gives cause for it, we can request further security at all times, in default of which we may suspend fulfilment of the Agreement.

10.5 The payments made by the Buyer are for the settlement of all due interests and costs, and apply to outstanding invoices that have been overdue longest, even though the Buyer notified that the payment is related to a later/newer invoice.

10.6 If the Buyer does not pay within the agreed term, he is considered to be in default by law without further notice of default, and we are entitled to charge for an interest that is equal to the statutory interest increased by 2% starting from the due date for the duration of the default, and also for court and other costs related to the collection. The out-of-court costs are determined to be 15% off the claim, with a minimum of € 250,-. Should we prove that higher costs were incurred that were in all reasonability necessary, these costs will also qualify for settlement.

Claims and guaranty

11.1 Without prejudicing the stipulations in sub-clause 2 of Clause 9, any defects and/or shortcomings that are not directly noticeable when delivery of the goods is taken we shall be forthwith notified in writing by the Buyer after discovering the defect or the flaw, but not later than fourteen days after the invoice date. In any case, the entitlement to claims will lapse after the goods supplied by us are handled or processed. The Buyer must prove that the defect or flaw was caused solely

or mainly as a direct result of faulty material or manufacturing defect.

11.2 Should we acknowledge liability for the defect or the flaw, we are entitled to restore (or cause the restoring of) the goods or to supply new goods in exchange for the supplied goods, at our own discretion.

11.3 We shall not accept goods that are returned without our prior advice.

11.4 Small deviations in colour, qualities, weights and measurements that are deemed acceptable or technically unavoidable in trade, shall not give reasons for claims, not even if sold by sample. Technical advice is given by us to the best of our knowledge and our ability, but can never be the cause of any liability.

11.5 Our guarantee does not apply to defects that are caused by outside force, weather influences, and wrong treatment, handling or processing after delivery by us, or other reasons beyond our control. Neither can we vouch for failings resulting from the Buyer's providing us incorrect information or unsuitable materials when instructing us.

11.6 As goods that are not included in our manufacturing program, we are required to give only the guarantee we were provided with by the manufacturer of these goods.

11.7 We cannot vouch for the goods being suitable for the purpose for which the Buyer wants to designate them, not even if we were informed of this purpose, unless the contrary was explicitly agreed to by the Buyer and us.

11.8 Claims for guarantee do not suspend the Buyer's payment obligations. The guarantee and any claim on this basis shall lapse when the Buyer fails to fulfill obligations towards us.

11.9 On pain of cancellation, legal actions relating to claims or guarantees must be commenced within one year after timely lodging the claim.

11.10 Compliance with our guarantee is the only full compensation. Any further claim for compensation and every form of compensation for consequential loss is excluded. Should we nevertheless be bound to compensation of damages, they are deemed to be, at most, equal to the invoice price of the faulty part that caused the damage. Under no circumstances we are obliged to pay compensation more than our indemnity insurance paid out.

11.11 The Buyer shall indemnify us and our employees against claims from third parties for damages for which we excluded or restricted our liability in our General Terms and Conditions in our relationship with the Buyer.

11.12 We shall never be liable for (the result of) faulty storage, or for wrong or improper use of the goods supplied by us.

Dissolution

12.1 Without prejudicing any further rights belonging to us, we, in case circumstances beyond our control prevent us from fulfilling the Agreement, are entitled to suspend the delivery until these circumstances have ceased to exist, or, in as far as the Agreement has not been fulfilled, to dissolve the Agreement wholly or partly at our discretion, without being obliged to pay any damages or guarantee, without prejudicing the Buyer's right stipulated in sub-clause 5 of Clause 7.

12.2 In these General Terms and Conditions, circumstances beyond our control shall mean any circumstance independent of our will, whether or not foreseeable, as a result of which we cannot comply with our obligations temporarily or permanently, including war, the threat of war, (natural) disasters, blockades, riots, strikes, government intervention, weather conditions that are bad for the goods to be delivered, damage of lost raw materials, transport difficulties, fire and other industrial disturbances, delayed delivery by sub-suppliers and other reasons beyond our control.

12.3 If the Buyer does not, or does not properly or timely comply with a obligation resulting from the Agreement, as well as in case of bankruptcy, or suspension of payment or of a winding-up of the Buyer's company, the Buyer is considered to be in default by operation of law, and we are, at our discretion, entitled to suspend the fulfillment of all agreements with the Buyer without notice of default and without judicial intervention, without having to pay any damages. Should we dissolve the agreement(s) we are also entitled to take back the delivered

and not-paid goods as our property, without prejudicing our right to damages.

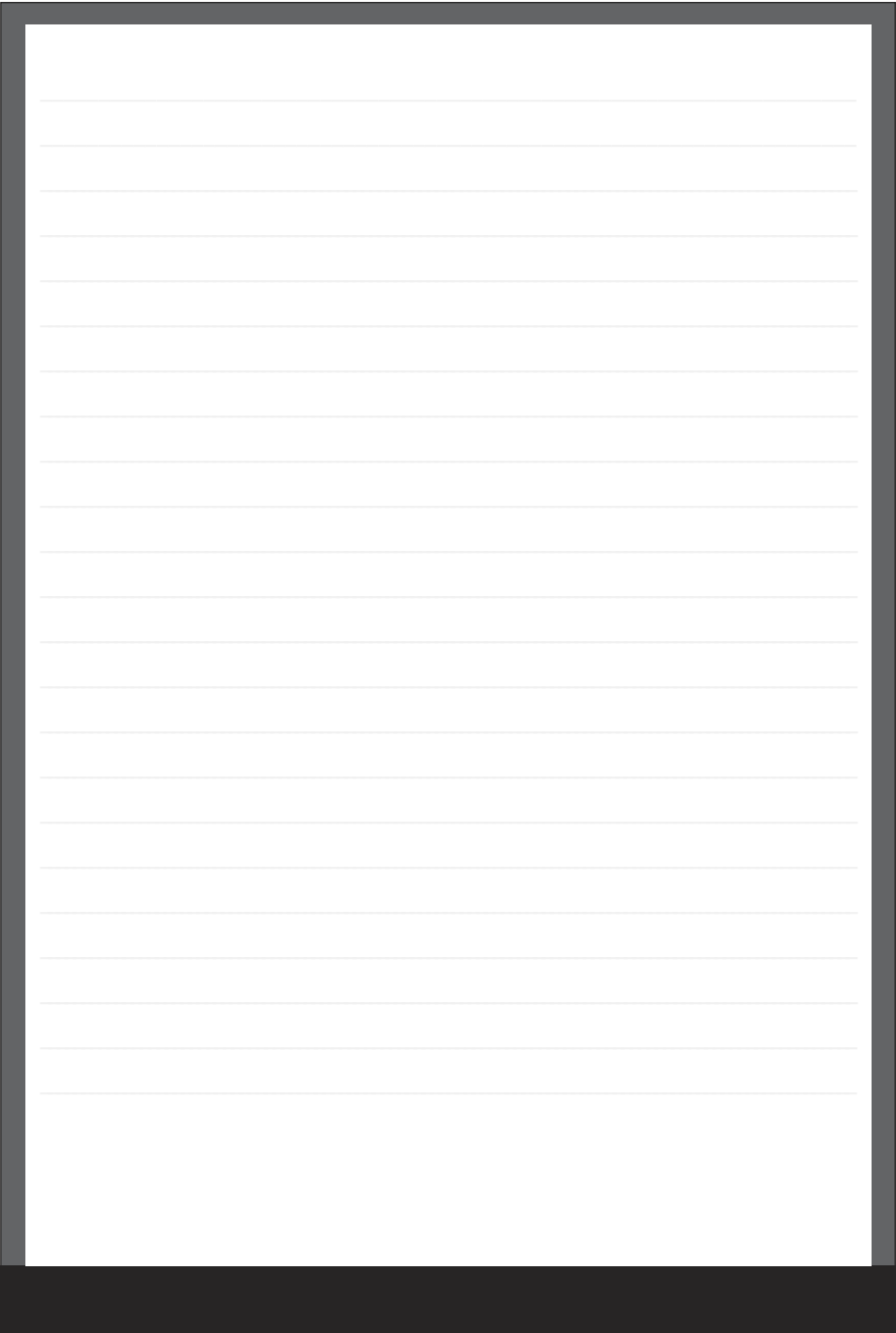
Disputes

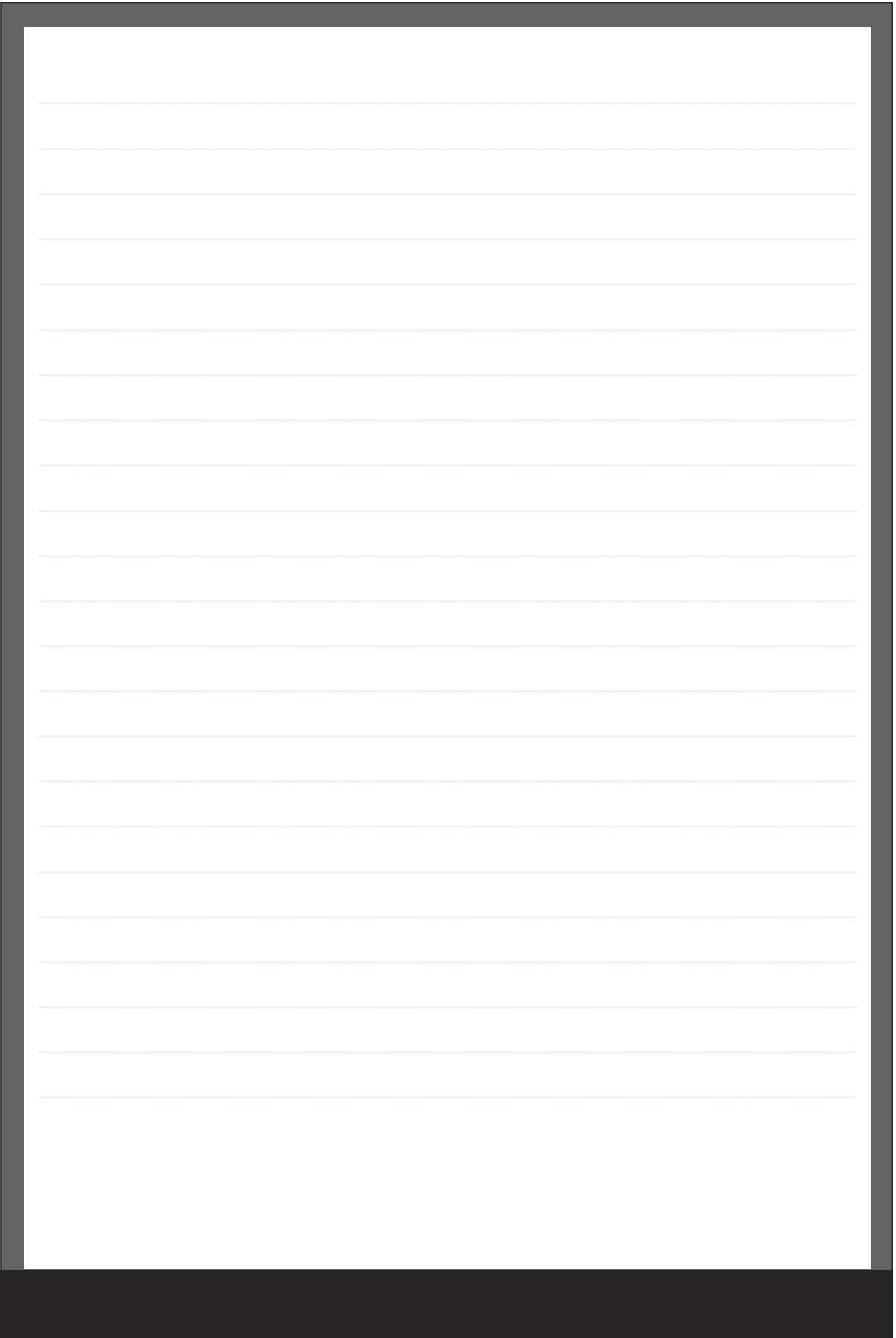
13.1 All disputes related to, or connected with, or ensuing from the agreements concluded with us shall only be submitted to the competent court in the district of Arnhem, the Netherlands, unless we would prefer to submit the dispute to another court with territorial jurisdiction.

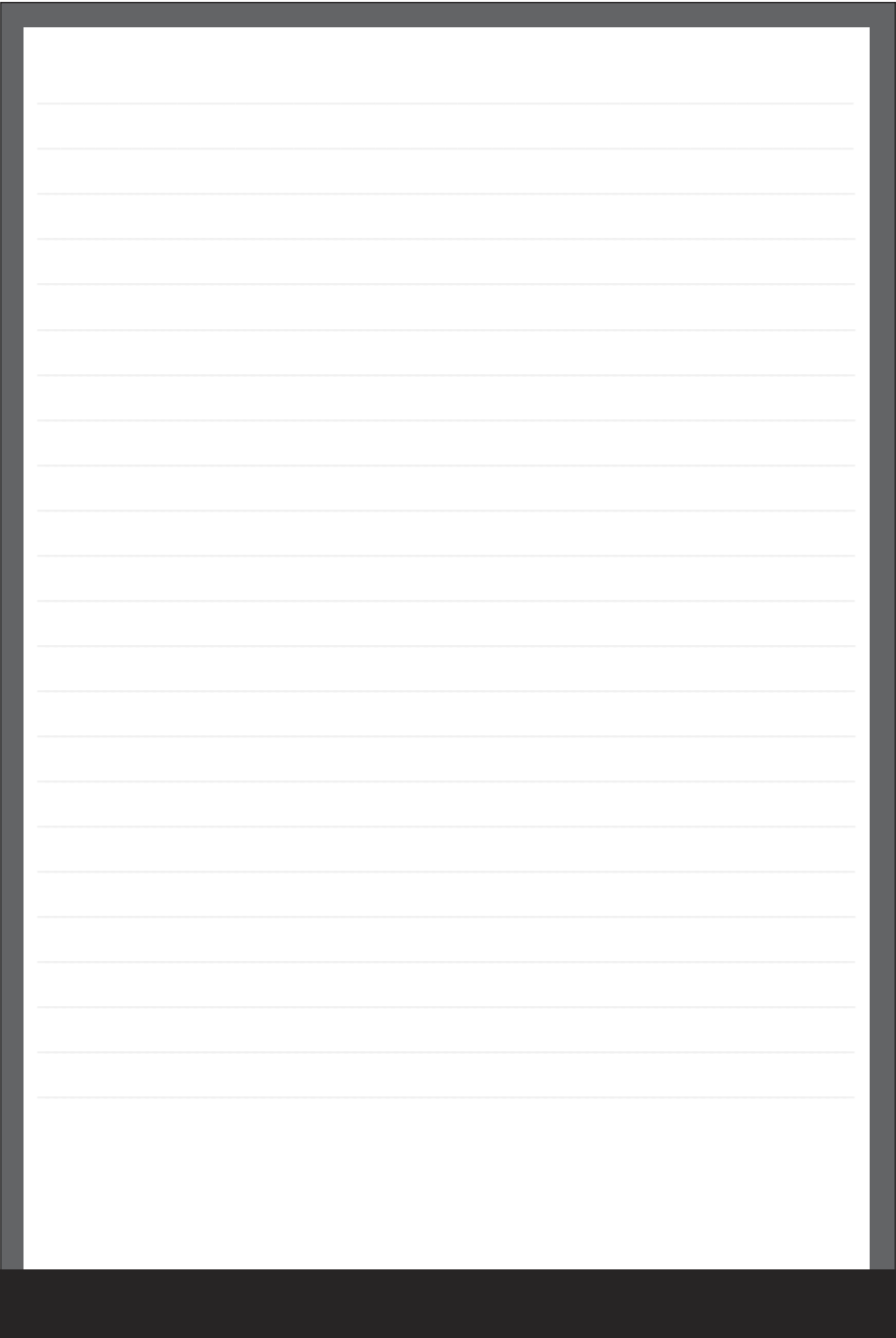
Applicable Law

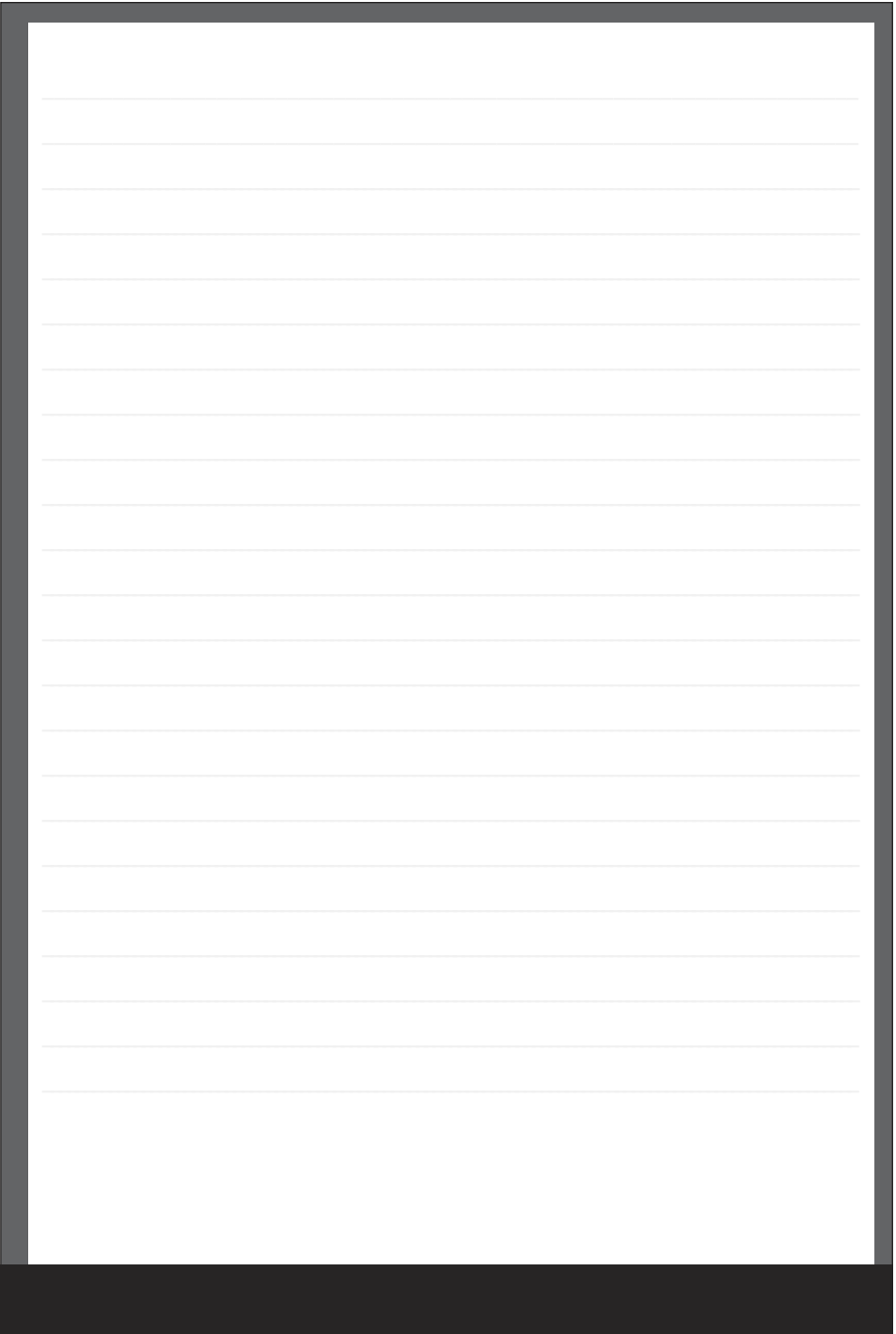
14.1 Dutch law applies to all agreements under these General Terms and Conditions, with the exception of the "Uniform Law on the Formation of Contracts for the International Sale of Goods (ULFIS)", "The Uniform Law on the International Sale of Goods (ULIS)" (The Vienna Sales Convention (CISG)).

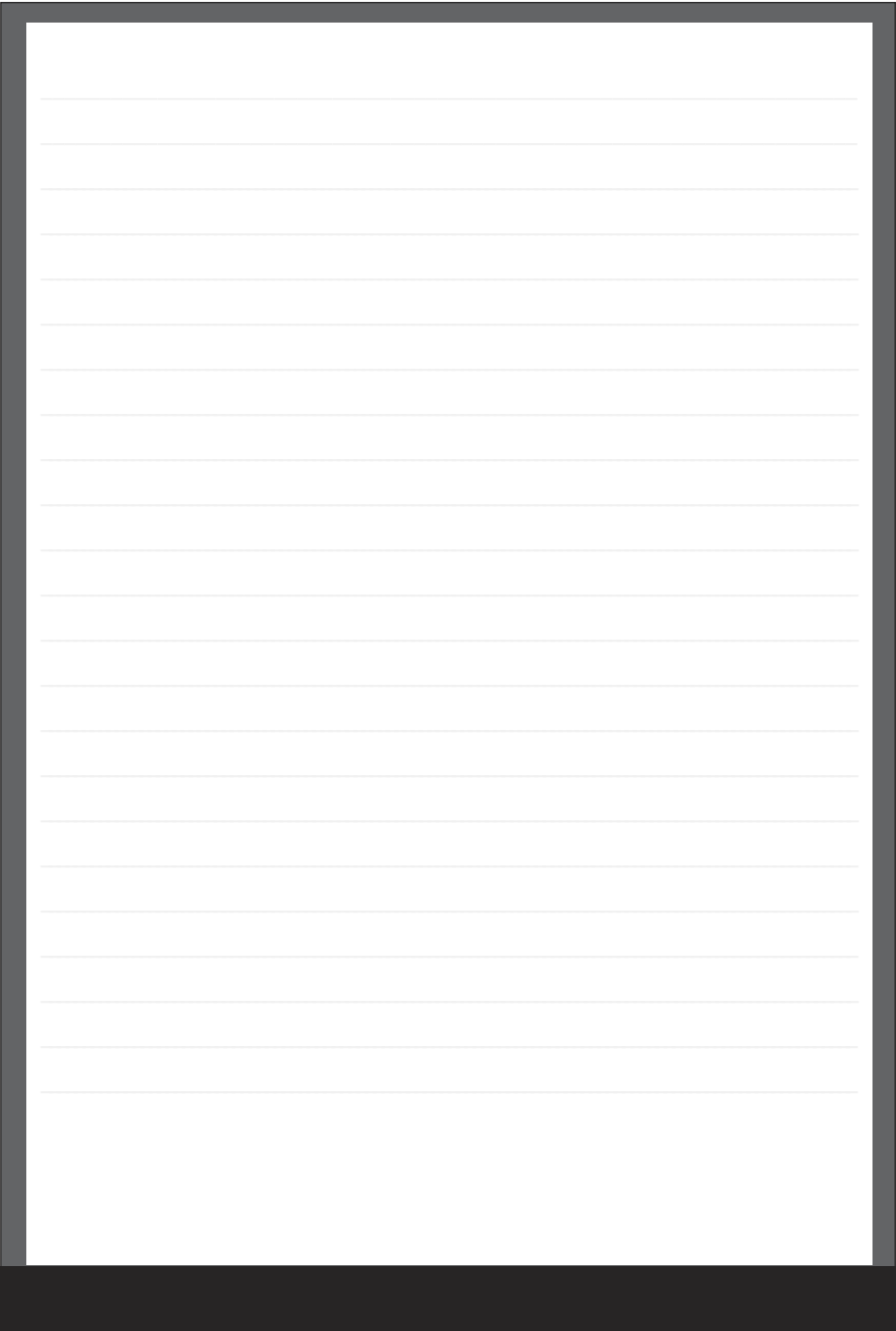
16.1 NOTES











REGISTER

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CURING COMPOUND TM AC-1	173		
CURING COMPOUND TM B	174		
CURING COMPOUND TM P-OT	171		
DB FIXMO TM W 15/2	237		
DEGREASER TM	292		
ELEMENT ADHESIVE TM	245		
EPOXY MORTAR TM EP2	265		
EPOXY MORTAR TM GREY	264		
EPOXY RESIN TM (2-COMPONENT)	262		
ESTRIFIX TM	30		



GROUT TM V	205	PRIMER TM	174
GROUT TM VB	200	PURGA TM	253
HYDROPHOBING POWDER TM 86/12	126	RAPID MORTAR TM 5R	221
IMPREX TM	251	REGISTER	305
IMPREX TM ID	257	RELEASE AGENT TM	139
INJECTION MORTAR TM 91/31	177	REPAIR MORTAR TM 78/31	215
INJEX TM MV	288	REPAIR MORTAR TM 88/14	216
JOINT CASTING MORTAR TM 700 PFM	184	REPAIR MORTAR TM 91/28	211
JOINT CASTING MORTAR TM PFM	195	REPAIR MORTAR TM 92/21	210
JOINT FILLER FOR MASONRY TM	190	REPAIR MORTAR TM B.S.L. 0,5 MM (CODE RED)	220
JOINT FILLER FOR TILES TM	183	REPAIR MORTAR TM TERRAFIX PCC 0,5 MM	212
JOINT FILLER WATER-REPELLENT TM	192	REPAIR MORTAR TM TERRAQUICK PCC 0.5 MM	225
LEVELLING COMPOUND TM	178	RUST REMOVER TM	267
MIXER CLEANER TM	269	SEALING AGENT TM	132
MIXER PROTECTOR TM	262	SEALING MORTAR TM	226
MORTAR ACCELERATOR TM 72/42-HO	29	SETTING ACCELERATOR TM 86/14	21
MORTAR ADMIXTURE TM 79/7	37	SETTING ACCELERATOR TM 87/10	19
MORTAR RETARDER TM FT	36	SILKO TM	255
MORTAR RETARDER TM W	38	SILO COATING TM	258
MORTAR SEALANT TM 76/139	131	SPRAY MORTAR TM	181
MORTAR STABILISER TM 81/36	112	SPRAY MORTAR TM 8 MM	193
MORTAR STABILISER TM FTB	111	STABILISER TM 74/125	280
OIL FOR MIXERS TM 87/11	274	STABILISER TM MA	282
OIL SOLVENT TM	271	STABILISER TM MA-10	285
PLASTERING AGENT TM	114	STABILISER TM MA-8	281
PLASTER MORTAR TM	179	STABILISER TM S	283
PLASTER PLASTICISER TM XB-140 C	80	STABILISER TM STABEX 100 CON. 1% (ST)	286
PLASTER RETARDER TM	40	STONE ADMIXTURE TM	54
PLASTICISER TM	46	STONE ADMIXTURE TM R	58
PLASTICISER TM 400	53	SUPERPLASTICISER TM 83/6	67
PLASTICISER TM 70/153-A	48	SUPERPLASTICISER TM CF-110	76
PLASTICISER TM 85/11	52	SUPERPLASTICISER TM K3T-11+H CON. 31%	63
PLASTICISER TM BV-X CON. 32%	59	SUPERPLASTICISER TM K3T-11+H CONCENTRATE	83
PLASTICISER TM BV-VZ	51	SUPERPLASTICISER TM OFT-4	70
PLASTICISER TM CX-200	57	SUPERPLASTICISER TM OFT-5	73
PLASTICISER TM F CON. 19%	50	SUPERPLASTICISER TM OFT-6	74
PLASTICISER TM XR-100 CON. 37%	56	SUPERPLASTICISER TM OFT-600 CON. 26%	77
PLASTUATE TM	124	SUPERPLASTICISER TM OFT-II-DS CON. 37%	71
POLYFLOW 1500 CON. 20%	94	SUPERPLASTICISER TM OFT-III	61
POLYFLOW L 100 CON. 20%	95	SUPERPLASTICISER TM OFT-III+O CON. 39%	69
POLYFLOW S100 CON. 20%	91	SUPERPLASTICISER TM OFT-II 84/39 CON. 35%	66
POLYFLOW S413	96	SUPERPLASTICISER TM OFT-II CON. 24%	62
POLYFLOW S 180 CON. 20%	92	SUPERPLASTICISER TM ON-1	81
POLYGRID TM	236	SUPERPLASTICISER TM ON-2	82
POLYGRID TM 3	238	SUPERPLASTICISER TM ON-S 1000	85
POLYGRID TM 51	240	SUPERPLASTICISER TM ON-S 2000	86
POLYTOP TM AF 20	166	SUPERPLASTICISER TM ON-S 2000 + O CON.20%	100
POLY SMART SYSTEM PSS A	93	SUPERPLASTICISER TM ON-S 4000	87
POLY SMART SYSTEM PSS B	27	SUPERPLASTICISER TM ON-S 5000	88
POROFLOW TM	89	SUPERPLASTICISER TM ON-S 6000 CON. 20%	90
POROSEAL TM R-1	254	SUPERPLASTICISER TM XB-140 CON. 40%	75
POWDERFLOW 300	101	SUPERPLASTICISER TM XB-141	79
PRE-CASTING AGENT TM 700 PFM	188	SUPERPLASTICIZER	101
PREFAB ADMIXTURE TM	65	SURFACE RETARDER TM	44
PRESERVATION AGENT TM	140	SURFACE RETARDER TM 72/34	42

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