

DELTA MEMBRANE SYSTEMS LTD.



DELTA SYSTEM 500

'Providing Waterproofing Solutions'



The Sealed System

In soil retaining situations such as basements and vaults etc. the **DELTA** sealed system is recommended. The membrane selection depends on the required finish and flow rate if applicable. All membrane junctions, fixing points, service entries and other protrusions are sealed with the **DELTA** range of sealing products. Where active ground water is evident or expected drainage of one form or another should be incorporated into the specification. Our technical staff are available to give advice in this respect.

The Ventilated System

In above ground situations or in areas where no free running water is expected, for example where external pavements have been built up, the ventilated system can be used. The ventilated system with air gap at top and bottom, with sealed joints and fixings is sufficient in this situation. This method is seen as a sympathetic

solution in Heritage type properties as a general damp proofing system. The fabric of the building remains unchanged but the new internal surfaces are 'dry' and are salt and contamination free. Both dry lining or plaster direct finishes are available on the ventilated system.

Floors

As well as being a complete waterproofing and damp proofing system, the **DELTA** system is also used to upgrade damp and defective floors. With excellent crush resistance the system lends itself to a variety of different finishes which include conventional screeds, thin layer fast drying screeds and wood based floating floors. Insulation can also be used in conjunction with the system where required. The system can be linked to the D.P.C. constructed within a new wall or to an existing D.P.C.

Preparation

As the membrane systems are mechanically fixed there is no



reliance on the ability of the product to bond to the substrate. The **DELTA** system can be applied



to a variety of different substrates for example over existing renders or broken down bitumen coatings, etc. This can be easily achieved without detriment to the integrity of the system.

Damp Pressure Equalisation

The studded structure of the membrane allows the dampness behind the membrane to move in all directions unhindered, therefore the whole of the wall or floor surface takes the damp loading. Break downs created by weak points are eliminated. The product does not divert the problem to other areas.

Flexibility

In structures where movement or vibration can be a problem, examples being under street vaults, railway arches, and buildings constructed with movement joints,



the **DELTA** system can cope. The **DELTA** membrane has an elongation break of greater than 50%.

Speed

As there is little or no preparation required the system is by comparison quick to install. When dry finishes are used the system is a 'fast track' solution. Decoration does not need to be delayed as there is no drying process.

DELTA Membrane Systems is the U.K. arm of the world's largest producer of cavity drain systems. The market leading **DELTA** brand has a track record approaching three decades. The **DELTA** systems have been used successfully in many situations in the U.K, from small domestic basements up to major waterproofing projects such



as London Underground stations. There is rarely a dampness or water ingress problem that falls outside the scope of the capabilities of the **DELTA** system.

What are DELTA Systems

With the introduction of British Standard BS.8102:2009 'Protection of below ground structures against water from the ground', the use of



cavity membranes has been generally accepted in the U.K. **DELTA** Systems are a complete range of products which are used together to solve many of today's problems in both new and old construction. **DELTA** Systems can easily deal with aggressive ground water conditions, where basements are liable to flooding, or indeed where simple dampness, contamination or salting problems are prevalent. Other more diverse applications include turf covered roofs, barn conversions, tunnel linings or even as a barrier against radon gas.

The main components of the system are the membranes themselves. These are manufactured from virgin high density polyethylene which is thermally and alkaline stabilised. The stud heights vary from 3mm for **DELTA-FM**, 8mm for **DELTA MS 500 & DELTA PT** to 20mm for **DELTA MS 20**. The cavity created by the membrane contains between 2.1 and 10 litres of space respectively. This is known as either the 'Air Gap' or the 'Drained Cavity', in wet situations.

The Membranes

DELTA-MS 500 This is used for walls and floors, and is supplied in 2.4, & 2m x 20m rolls. This membrane can be used for light water ingress situations, and is available yellow (**DELTA-FM**), and clear. The MS 500 clear aids the selection of good fixing points in more difficult application i.e. random stone and friable brickwork. The sealed **DELTA-Plug** or **Qwik Seal Plug** is used to secure System 500, the centre shank of this fixing is also used for subsequent dry lining applications.

DELTA PT LATH This membrane has a mesh incorporated on the internal face which is attached by a thermic welding process at the time of manufacture. The sealed PT fixing plug is used to secure the



membrane at 250mm horizontal and vertical centres. The welded mesh and fixing plugs allow for direct render 1.1.6.

(cement/lime/sand), or plasters: Tarmac Whitewall, Carlite Bonding, or dab fixed plasterboard for internal applications. When this grade is used for external above ground protection polymer renders can be used as a finish. These renders are polymer modified and can also have reinforcing fibres incorporated for added strength and durability. This grade is available in clear 2.0m x 20m (40m²), 1.5m x 10m (15m²) or 1.0m x 15m (15m²).

DELTA MS 20 This is a heavy gauge version of System 500 with deep 20mm studs. This is used where extra drainage capacity is required, for example basement floors, structures, or where a larger flow rate is required. MS 20 can also be

used as a 'cavity former' for many types of new construction. The rolls are a full 2 metre width by 20 metres in length (40m²).

Product Guarantee

DELTA membrane systems can come with a thirty year product guarantee when installed by registered installers. The guarantee covers the membrane and ancillary components. Based on experience, accelerated ageing tests and a quality manufacturing system to ISO 9001, the DELTA range can also be guaranteed with confidence.

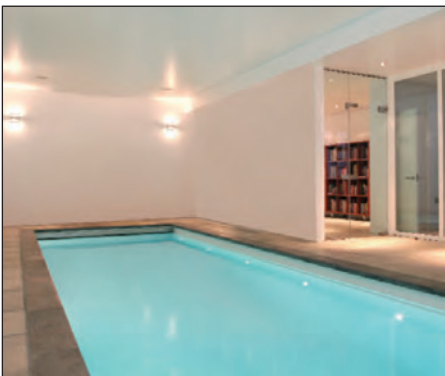
Technical site and/or office visits

Staff are available to visit site to give advice on particularly difficult or unusual situations, where appropriate specifications are prepared to assist in the correct use of the system.

Who Installs DELTA Systems

Although DELTA systems are by comparison, easy to install, it must be recognised that correct diagnosis of the problem is essential so that DELTA systems can be designed and tailored to the needs of the building, to give the best possible performance. It is therefore recommended that only competent specialist contractors, who understand dampness, and the associated problems, be employed to survey the site, install the system and thereby ensure the best possible performance of the system. DELTA systems are installed by a nationwide network of specialist contractors who are holders of 'Registered Installers' Certificates. These contractors also offer guarantees for their workmanship, giving peace of mind to the client.

COMPLETED BASEMENT PROJECTS



Leisure



Study



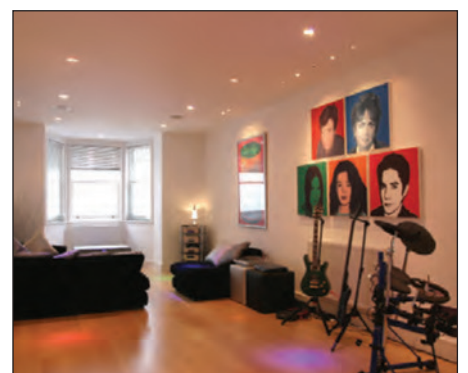
Photography Studio



Playroom



Home Cinema



Music Room

DRAINAGE OPTIONS

DELTA® SUMPS & PUMPS



When specifying a sealed cavity membrane system, full consideration must be given to drainage, when installed below ground.

The concept of the drained cavity system is to collect and manage any moisture which breaches the integrity of the structure by channelling, collecting, and discharging such free water via a suitable evacuation point.

Channels, laid to falls, can discharge passively into a sump or be connected to a drainage system but access for maintenance should be provided.

Access ports allow inspection and water jetting of channels, while sumps have a sealed access cover which allows for annual maintenance checks to be carried out, which are recommended.

If drainage has been installed, it should be flood tested before covering it up to make sure the system works.

Delta offer a choice of sump+pump stations to fit the purpose, including Ground, Surface, Foul Waste Water pumps as well as bespoke sumps. Service agreements can be arranged through Delta and are maintained by PPS Ltd.

Delta Sumps are fitted with a dual pump system and have up to three 110mm/160mm side inlets to take ground water, or grey water from shower, laundry and sink waste via a modular drainage system.

DELTA® CHANNEL

DELTA® AQUADUCT



Delta Channel is a water collection conduit which is bedded into a preformed channel at the floor/wall angle. Holes in the channel wall allows water to ingress at this point to drain away to a sump or soak away. Access ports are available to allow maintenance and inspection. The system is joined with a range of connectors.

Delta Aquaduct is a drainage channel which acts as a perimeter conduit bedded in at the floor/wall angle. Where appropriate, it can be laid under the slab to take off ground water to a sump or soak away, and reduce flotation pressures from bearing on the slab.

Delta Aquaduct is fully perforated for maximum performance, and incorporates an outer geotextile filter to prevent particles from entering the channel.

The product comes on a roll 150m x 60mm diameter. It is also available in 100m x 100mm dia rolls.

'FREE LIME' RISK

When new concrete forms the structure, to walls or particularly floors, there is a risk of excess free lime leaching out during the curing process. When a cavity drainage system is used in this type of application, a silicification pre-treatment of the concrete should be used to prevent the risk of free lime build up, and blockage of the drainage cavity. Delta Polysil-TG 500 is applied by spray for this purpose, and is available in 10kg drums.



BASEMENT PROTECTION

MAXXCONNECT™



If you've installed a cavity drained system internally, one of the main design considerations is how are you going to manage the water collection and discharge. This can be done passively into existing drainage points, if available and appropriate.

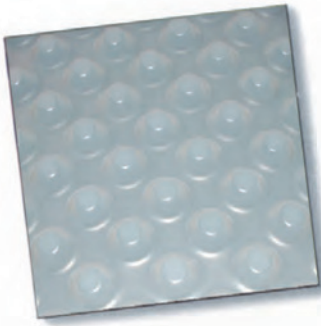
However, the majority of projects require a collection sump + pump, to automatically manage the evacuation of any water ingress. This type of unit requires mains power to operate, so what can be done if the power fails, and is coincident with high water ingress?

Peace of mind with the **MaxxConnect™** family.

The family consists of 3 products, the main and most essential being the **AlertMaxx** high level alarm to alert when there's a potential fault or a service is required, the **PowerMaxx** battery backup to keep pumps running during power cuts and the **MessageMaxx** telemetry which has the ability to send alert messages to up to 5 mobile phones and important data can be retrieved remotely.

The PowerMaxx Battery backup can run up to 2x V3 groundwater pumps without mains power for up to 4 days depending on the cycles per hour and sits in standby for up to 3 weeks and is virtually inaudible.

DELTA®-MS 500:



Cavity drainage membrane for use on walls and floors, as a waterproof system. A choice of finishes are available. Can also be used externally for waterproof protection of sub-ground structures.

Material:	high density polyethylene
Thickness:	approx. 0.6 mm
Stud height:	approx. 8 mm
Roll size:	available in clear
(With flat edge of 7 cm on one side)	2.4 x 20 m
Compressive strength:	2.0 x 20 m
Drainage capacity:	> 250 kN/m ²
	approx. 2.25 l/s · m
	approx. 135 l/min · m
	approx. 8 100 l/h · m
Air volume between studs:	approx. 5.3 l/m ²
Temperature resistance:	- 30°C to + 80°C
Chemical properties:	resistant to chemicals, resistant to root penetration, rotproof, neutral towards drinking water
Behaviour in fire:	Class E

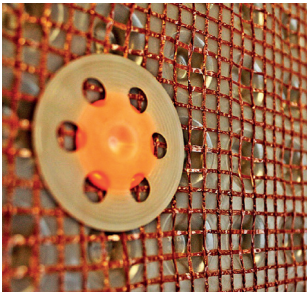
DELTA®-MS 20:



Dimpled sheeting with particularly high drainage capacity and compressive strength, suitable for high performance seepage layers in building and civil engineering construction. Ideal for basement floors.

Material:	high density polyethylene
Thickness:	approx. 1 mm
Stud height:	approx. 20 mm
Roll size:	2.0 x 20 m
Compressive strength:	approx. 150 kN/m ²
Drainage capacity:	approx. 10 l/s · m
	approx. 600 l/min · m
	approx. 36 100 l/h · m
Air volume between studs:	approx. 14 l/m ²
Temperature resistance:	- 30°C to + 80°C
Chemical properties:	resistant to chemicals, resistant to root penetration, rotproof, neutral towards drinking water
Behaviour in fire:	Class E

DELTA®-PT:



Dimpled sheeting with plastic mesh welded on, suitable as a damp-proof base for plaster or shotcrete, e.g., as a seepage layer in tunnel construction, or for repairing basements internally.

Material:	high density polyethylene
Thickness:	approx. 0.5 mm
Stud height:	approx. 8 mm / 8mm / 4mm
Roll size:	2.0 x 20 m / 1.5 x 10 m / 1.0 x 15m
Compressive strength:	approx. 70 kN/m ²
Drainage capacity:	approx. 5 l/s · m
	approx. 300 l/min · m
	approx. 18 100 l/h · m
Void between studs:	approx. 5.5 l/m ²
Temperature resistance:	- 30°C to + 80°C
Chemical properties:	resistant to chemicals, resistant to root penetration, rotproof, neutral towards drinking water
Behaviour in fire:	Class E

DELTA®-FM:



DELTA®-FM is specifically designed for floor applications, to combat dampness, and contamination. The special low stud profile (3mm) minimises changes in floor levels but still provides an air gap to achieve damp pressure equalisation.

The membrane is a fast-track application that allows various floor finishes to be achieved with zero 'down time'. The R.H. levels are isolated in the air gap, and controlled. Delta-FM can be used in new build, remedial or refurbishment projects for floors, and walls.

Material:	Virgin high-performance PE-VHD
Application:	Special low stud profile for floor. Can be used on walls
Sheet thickness:	approx. 0.6 mm
Dimple height:	approx. 3 mm
Compressive strength:	approx 140 kN/m ²
Roll dimensions:	20m x 2m (40m ²)
Volume between dimples:	approx 2.1 l/m ²
Service temperature range:	-30degC / +80degC
Behaviour in fire:	Class E

DELTA®

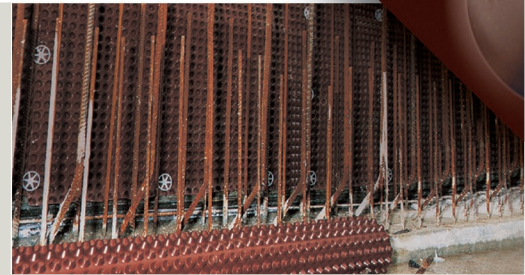
DELTA® protects property. Saves energy. Creates comfort.

DÖRKEN

DELTA®-MS 20

General-purpose seepage layer for long-term safety.

Resistant to compression and degradation in soil.



STANDARD QUALITY

DELTA®-branded quality products made by Dörken.

■ Drainage system

■ For building construction and civil engineering

■ For vertical and horizontal application

DELTA®-MS 20

Technical data overview:

Material	Special high-density PE
Dimple height	20 mm approx.
Compressive strength	150 kN/m ² approx.
Drainage capacity	10 l/s · m approx.
Air gap between dimples	14 l/m ² approx.
Service temperature range	-30 °C to +80 °C
Fire resistance rating	Standard flammability as per DIN 4102 class B2; optional DIN 4102 class B1 for special requirements
Roll size	20 m x 2 m

DELTA®-MS 20 perforated

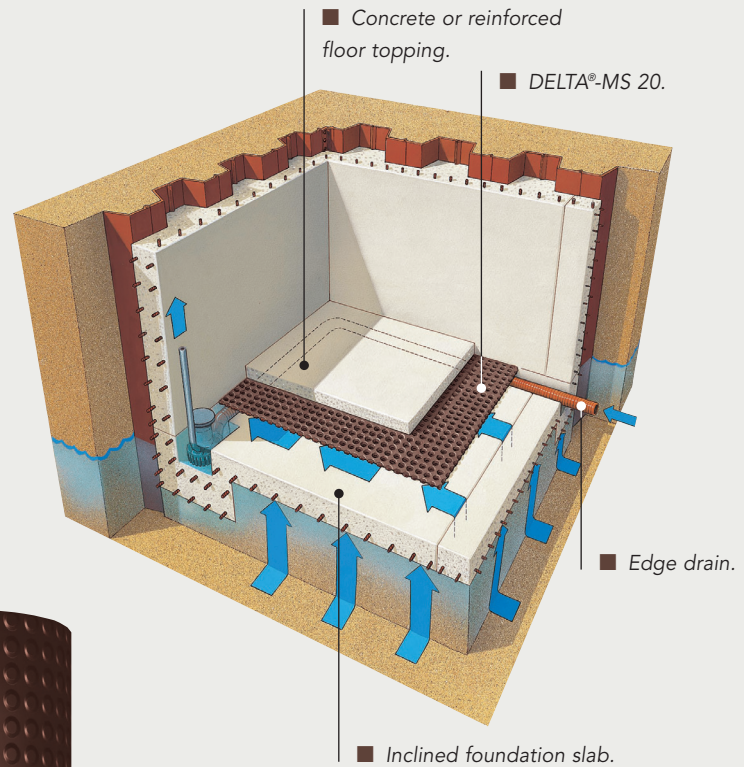
Technical data as for DELTA®-MS 20 except	
Compressive strength	110 kN/m ² approx.
Drainage capacity at 1 cm water column	0.5 l (s x m ²)

High drainage capacity in double-shell structures.

DELTA®-MS 20 ...

- ... is a compression-resistant, durable dimpled sheet made from special high-density polyethylene.
- ... offers outstanding safety thanks to its 20-mm dimples and its high drainage capacity.
- ... resists degradation in soil and chemical attack as well as being non-polluting for drinking water.
- ... may be applied as a cost-efficient horizontal or vertical permanent shuttering between a shotcrete shell or curtain wall and a concrete structural wall.
- ... drains off water emerging from the rocky subsoil when vertically applied.
- ... controls rising underground water when laid horizontally between the foundation and the surface layer of a carriageway, and conveys it towards the drain.
- ... is ideal for coping with water-related problems in tunnel construction. With the dimples facing outward, the sheet forms a continuous system of channels by which water is guided towards the drain.
- ... in the perforated version is a special high-capacity sheet for draining roof surfaces such as parking decks and roof gardens. Because of their porosity, sheets are permeable so that surplus water will drain away evenly.

DELTA®



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KÖSTER Restoration Plaster 2 White

Technical Data Sheet M 662 025

Issued: 2016-01-26

- Test report according to DIN EN 998-1, MPA BAU Hannover

White salt- and moisture resistant restoration plaster for inside and outside use

	KÖSTER BAUCHEMIE AG Dieselstraße 1-10, 26607 Aurich 13 M 662 EN 998-1:2010 Restoration Plaster (R) EN 998-1:2010 ZA.1													
	<table border="0"> <tr> <td>Compressive strength 28 d</td> <td>CS II</td> </tr> <tr> <td>Capillary water uptake</td> <td>> 0.3 kg/m² after 24 h</td> </tr> <tr> <td>Tensile strength</td> <td>0.05 N/mm² failure type A</td> </tr> <tr> <td>Dry density</td> <td>1.05 kg/dm³</td> </tr> <tr> <td>Depth of water penetration</td> <td>≤ 5 mm</td> </tr> <tr> <td>Coefficient of water vapor permeability</td> <td>μ 15</td> </tr> <tr> <td>Reaction to fire</td> <td>A1</td> </tr> </table>	Compressive strength 28 d	CS II	Capillary water uptake	> 0.3 kg/m ² after 24 h	Tensile strength	0.05 N/mm ² failure type A	Dry density	1.05 kg/dm ³	Depth of water penetration	≤ 5 mm	Coefficient of water vapor permeability	μ 15	Reaction to fire
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Features

KÖSTER Restoration Plaster 2 White is a salt and pressure resistant restoration plaster for the restoration of heavily moisture and salt burdened substrates. Due to its high porosity and hydrophobicity, KÖSTER Restoration Plaster 2 White allows for the damage free drying and de-salting of masonry even in the case of high salt contents. It improves the insulative properties of the wall and therefore helps prevent the formation of condensate. KÖSTER Restoration Plaster 2 White is free of light fillers and therefore requires no further surface treatment prior to the application of breathable paints or wallpaper which is open to vapor diffusion.

Technical Data

Density of fresh mortar	1.3 kg / l
Porosity of fresh mortar	34 V-%
Compressive strength (7 days)	> 2.5 N / mm ²
Flexural tensile strength	> 1.4 N / mm ²
Porosity of cured plaster	approx. 41 V-%
Setting time	approx. 3 hours
Water consumption per 25 kg bag	3.1 - 3.6 l

Fields of Application

KÖSTER Restoration Plaster 2 White is suitable for the repair of moisture and salt damaged masonry, also after the post installation of a horizontal barrier with KÖSTER Crisin 76, KÖSTER Mautrol, KÖSTER Mautrol 2C, or KÖSTER Mautrol Flex 2C. It can be applied to reduce the formation of condensate after waterproofing rooms with high humidity using mineral sealing slurries such as the KÖSTER KD System or KÖSTER NB 1 Grey.

KÖSTER Restoration Plaster 2 White can also be used as a water repellent exterior plaster. In the case of exterior application we recommend the application of KÖSTER Repair Mortar on the base area up to 30 cm above ground level.

Substrate

Suitable substrates include concrete, masonry consisting of brick, natural stone, porous concrete block, perforated brick, mixed masonry, etc., sealing slurries such as KÖSTER NB 1 Grey, KÖSTER NB 2 White, or the KÖSTER KD-System. Prior to the application of KÖSTER Restoration Plaster 2 White, the substrate is primed with KÖSTER Polysil TG 500 with a minimum consumption of 120 g / m². Apply the KÖSTER Polysil TG 500 until the surface is saturated. In the case of strongly absorbent substrates the consumption can be up to 250 g / m². Loose particles and salt efflorescence should be removed mechanically prior to the beginning of the restoration. Substrates containing gypsum are not suitable substrates and the gypsum must be removed.

Application

Preparing a Restoration Plaster Key

A plaster key is a thin slurry which is used as a bonding bridge between the substrate and the Restoration Plaster. To make a plaster key mix one bag of KÖSTER Restoration Plaster 2 White with approximately 3.1 liters of water and 350 ml of KÖSTER SB Bonding Emulsion until a thin slurry is achieved. The exact amount of mixing water can be higher or lower depending on the temperature, humidity, and absorbency of the substrate. The plaster key has the proper consistency when it can be easily cast onto the surface but does not run off. The slurry is cast onto the substrate with a brush or a trowel so that the plaster key is no thicker than 5 mm and covers approximately 50% of the area. After 24 hours the Restoration Plaster can be applied. On rough surfaces or on walls where the joints have been scratched out no Restoration Plaster Key is required.

Mixing

Each 25 kg bag is mixed with 3.1 l to 3.6 l of clean potable water. Put 2.5 l of water in a clean mixing vessel and add the powder in portions while continually mixing using a slow speed mechanical compulsory mixer (under 400 rpm). Add in portions as much of the remaining water as necessary to achieve the desired consistency and mix until the mortar has a homogeneous texture. Mixing time is 3 minutes after all powder has been added to the liquid.

Directly after priming the substrate with KÖSTER Polysil TG 500 the Restoration Plaster Key is applied (consumption: approx. 3 kg / m²) After 24 hours of waiting time the KÖSTER Restoration Plaster 2 White is applied. The plaster is usually applied in two coats with a total layer thickness of approx. 2.5 cm; the thickness should be at least 2 cm. After casting the plaster onto the substrate, it is trued using a feather edge, a straight edge, or a long float trowel. Once the plaster starts to set it is smoothed using a float. If several layers of plaster are to be applied, the lower layer is roughened thoroughly by scratching immediately after it begins to set.

The information contained in this technical data sheet is based on the results of our research and on our practical experience in the field. All given test data are average values which have been obtained under defined conditions. The proper and thereby effective and successful application of our products is not subject to our control. The installer is responsible for the correct application under consideration of the specific conditions of the construction site and for the final results of the construction process. This may require adjustments to the recommendations given here for standard cases. Specifications made by our employees or representatives which exceed the specifications contained in this technical guideline require written confirmation. The valid standards for testing and installation, technical guidelines, and acknowledged rules of technology have to be adhered to at all times. The warranty can and is therefore only applied to the quality of our products within the scope of our terms and conditions, not however, for their effective and successful application. This guideline has been technically revised; all previous versions are invalid.

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Interior surfaces can be smoothed using KÖSTER Fine Plaster. KÖSTER Fine Plaster must be applied either within 48 hours after the application of the last coat of KÖSTER Restoration Plaster 2 White or after the restoration plaster has cured for 28 days. Paint can be applied after 7 days.

Restoration against rising damp

Prior to the restoration of areas using the KÖSTER Restoration Plaster System, the waterproofing against rising damp (capillary wicking moisture in the wall) must be completed. For this refer to the following technical guidelines: KÖSTER Mautrol, KÖSTER Mautrol 2C, KÖSTER Mautrol Flex 2C, or KÖSTER Crisin 76. Immediately after closing the boreholes with KÖSTER KB-Fix 5, the salt treatment and substrate strengthening using KÖSTER Polysil TG 500 is carried out (minimum consumption is 120 g / m², in the case of strongly absorbent substrates up to 250 g / m²). Directly after that, the Restoration Plaster Key is applied (Consumption: approx. 3 kg / m²) on top of which - after another 24 hours of waiting time - KÖSTER Restoration Plaster 2 White is applied in one or two layers with a minimum thickness of 2.0 cm.

Reduction of condensate formation (subsequent measure when using the KÖSTER KD-System and KÖSTER NB 1 Grey)

The waterproofing against pressurized and actively flowing water is carried out using the KÖSTER KD System. Approx. 24 hours after finishing the waterproofing, the Restoration Plaster Key is applied. After another 24 hours, KÖSTER Restoration Plaster 2 White can be applied on top of the Restoration Plaster Key.

After smoothing and curing, the surface of the restoration plaster can be covered with paints and wallpapers which are open to vapor diffusion without further pre-treatment.

When waterproofing against non-pressurized water and pressurized water without active leakages using KÖSTER NB 1 Grey and KÖSTER Polysil TG 500, the restoration plaster is thrown directly onto the last not yet cured layer of slurry without prior application of a plaster key.

Aftertreatment

If aftertreatment is required or desired, for example due to very dry conditions, the plaster can be treated according to the general practice for mortars, such as covering with a thin PE sheet.

Consumption

Approx. 12 kg / m²; per cm layer thickness

On uneven surfaces additional consumption may have to be considered for levelling the surface.

Cleaning

Clean tools immediately after use with water.

Packaging

M 662 025

25 kg bag

Storage

Store the material in a dry place. In originally sealed packages the material can be stored for a minimum of 12 months.

Safety

Wear protective gloves and goggles when processing the material. Observe all governmental, state, and local safety regulations when processing the material.

Related products

KÖSTER KB-FIX 5	Prod. code C 515 015
KÖSTER Polysil TG 500	Prod. code M 111
KÖSTER Mautrol Liquid Sealant	Prod. code M 241
KÖSTER Mautrol 2C	Prod. code M 261
KÖSTER Mautrol Flex 2C	Prod. code M 262 020
KÖSTER Crisin Cream	Prod. code M 278
KÖSTER Crisin 76 Concentrate	Prod. code M 279
KÖSTER Fine Plaster	Prod. code M 655 025
KÖSTER Façade Cream	Prod. code P 200
KÖSTER Silicone Paint White	Prod. code P 260 010
KÖSTER KD System	Prod. code W 219 001
KÖSTER NB 1 Grey	Prod. code W 221 025
KÖSTER NB 2 White	Prod. code W 222 025
KÖSTER NB 1 Fast	Prod. code W 223 025
KÖSTER Repair Mortar	Prod. code W 530 025
KÖSTER Waterstop	Prod. code W 540 015
KÖSTER SB Bonding Emulsion	Prod. code W 710
KÖSTER NB 1 Flex	Prod. code W 721 008

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KÖSTER NB 4000

Technical Data Sheet W 236 020

Issued: 2015-05-07

Two component, mineral thick film sealant. Quickly rain and waterproof

Features

KÖSTER NB 4000 is a polymer modified mineral coating for waterproofing building structures inside and outside. It is resistant to rain soon after application and can be exposed to pressurized water after 24 hours. It is elastic and crack bridging.

Technical Data

Color	grey
Solids	approx. 90 % by weight
Density (+ 20 °C)	0.95 g / cm ³
Application temperature	+ 2 °C to + 30 °C

Fields of Application

KÖSTER NB 4000 is suited for waterproofing building structures inside and outside, especially in the restoration of buildings.

Substrate

The substrate can be dry or slightly moist. It must be clean, free of oil and grease, and free of loose particles. Damaged concrete or plaster areas as well as cracks and holes with a depth of more than 5 mm are to be repaired with KÖSTER Repair Mortar beforehand. Substrates contaminated with salts are to be treated with KÖSTER Polysil TG 500.

Application

Mixing

Fill the liquid component into a mixing vessel which is large enough to accommodate the liquid and the powder component. Add the powder component to the liquid component in portions while continually mixing with a double paddle slow rotating electrical mixer. Mix both components intensively until a homogeneous, paste-like, lump-free consistency is reached. Minimum mixing time is 3 minutes.

Application

KÖSTER NB 4000 is applied in 2 coats by trowel. The second coat is to be applied as soon as can be done so without damaging the first coat. The layers must be free of defects, even and in the recommended layer thickness. The actual dry layer thickness must not be less than the recommended minimum and must not exceed it by more than 100 %. Areas prone to or in danger of cracking should have KÖSTER Flex Fabric imbedded in the fresh first layer. The area waterproofing of the wall must be overlapped at least 10 cm onto the front of the floor slab or the foundation. The external waterproofing must be connected to the existing horizontal waterproofing in all areas. Protect the fresh coating from rain and frost, from exposure to water, as well as strong sunlight until the coating has fully cured. Provide a mechanical protection (for example KÖSTER SD Protection and Drainage Sheet) before backfilling.

Consumption

3.1 -4.2 kg/m²;

Dry layer thickness minimum 3.0 mm;

Wet layer thickness > 3.3 mm; consumption: 3.1 kg / m²

Dry layer thickness 4.0 mm;

Wet layer thickness 4.4 mm; consumption: 4.2 kg / m²

Cleaning

Clean tools immediately after use with water.

Packaging

W 236 020	20 kg Hobbock (10 kg powder and 10 kg liquid inside)
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Storage

Store the material cool but frost free. In originally sealed packages it can be stored for a minimum of 12 months.

Safety

Observe all governmental, state, and local safety regulations when processing the material.

Related products

KÖSTER Polysil TG 500	Prod. code M 111
KÖSTER Glass Fiber Mesh	Prod. code W 411
KÖSTER Flex Fabric	Prod. code W 450 100
KÖSTER Repair Mortar	Prod. code W 530 025
KÖSTER Protection and Drainage Sheet 3-400	Prod. code W 901 030

The information contained in this technical data sheet is based on the results of our research and on our practical experience in the field. All given test data are average values which have been obtained under defined conditions. The proper and thereby effective and successful application of our products is not subject to our control. The installer is responsible for the correct application under consideration of the specific conditions of the construction site and for the final results of the construction process. This may require adjustments to the recommendations given here for standard cases. Specifications made by our employees or representatives which exceed the specifications contained in this technical guideline require written confirmation. The valid standards for testing and installation, technical guidelines, and acknowledged rules of technology have to be adhered to at all times. The warranty can and is therefore only applied to the quality of our products within the scope of our terms and conditions, not however, for their effective and successful application. This guideline has been technically revised; all previous versions are invalid.