




KÖSTER NB Elastic Grey

Technical Data Sheet W 233 033

Issued: 2023-11-02

- Test report 1202/793/20, MPA Braunschweig, 27.10.2020, Liquid applied water impermeable products for external installations on walls and floors, beneath ceramics tiles
 - 1202/127 / 21-1, DIN EN 1062-6: 2002: Coating materials and coating systems for mineral substrates and concrete in outdoor areas - Part 6: Determination of the carbon dioxide diffusion current density, MPA Braunschweig, June 15, 2021
 - 1202/127 / 21-1, DIN EN 1062-6: 2002: Determination of water vapor permeability - shell method, MPA Braunschweig, June 15, 2021
 - ITB (Institute for Technical Building Materials) Warsaw, test for waterproofing components in contact with the ground, tanks, balconies and terraces, document number ITB-KOT-2019/0834 version 1 of June 28, 2021
 - ITB Test Report Nr. LZM00-03431/20/Z00NZM: Mechanical, waterproofing, adhesion properties at high and low temperatures, and vapor transmission values

2 component, elastic mineral waterproofing for areas in danger of cracking. For concrete and masonry substrates. Resistant to pressurized water

 0761	KÖSTER BAUCHEMIE AG Dieselstraße 1-10, 26607 Aurich 20 W 233 EN 14891:2012 CM. O1P Liquid applied water impermeable product for external installations on walls and floors, beneath ceramic tiling
Initial tensile adhesion strength	> 0.5 N/mm ²
Tensile adhesion strength after water contact	> 0.5 N/mm ²
Tensile adhesion strength after heat aging	> 0.5 N/mm ²
Tensile adhesion strength after freeze-thaw cycles	> 0.5 N/mm ²
Tensile adhesion strength after contact with lime water	> 0.5 N/mm ²
Tensile adhesion strength after contact with chlorinated water	> 0.5 N/mm ²
Crack bridging ability	> 0.75 mm
Crack bridging ability at low temperature	> 0.75 mm (at - 5 °C)
Waterproofing	No penetration
Release of dangerous substances	Accordance with 4.2 (EN 14891)

Technical Data

Density (powder and liquid component)	approx. 1.7 g / cm ³
Max. aggregate size	approx. 0.4 mm
Binder contents (synthetic comp.)	min. 60 % by weight
Application temperature	min. + 2 °C
Tensile elongation (entire system)	> 50 %
Crack bridging acc. EN 14891 (2 mm layer thickness)	> 0,75 mm
Tensile strength	≥ 0.7 N / mm ²
Crack bridging EN 1062-7	- 20 °C, Class A3 (> 500 µm)
Adhesive tensile strength EN 14891	> 0.5 N / mm ²
Waterproof against pressurized water up to	7 bar
CO ₂ diffusion equiv. air layer thickness	S _D CO ₂ > 200 m
CO ₂ diffusion resistance value	µ > 100000
H ₂ O diffusion equiv. air layer thickness	S _D H ₂ O > 3,0 m
H ₂ O diffusion current density	V = 6,73 g/m ² *d
H ₂ O diffusion resistance value	µ = 1760 m
Waterproof against pressurized water EN 14891	7 bar
Pot life	approx. 2 hours
Resistant to foot traffic resistant	after approx. 24 hours
Application of following layers after	after approx. 24 hours
Complete drying time	(+ 20 °C, 65 % rel. Hum.) approx. 24 hours

Features

KÖSTER NB Elastic Grey is a waterproof, elastic, wear resistant coating with excellent adhesion to all mineral substrates. The material can bridge cracks up to a width of 2 mm, is abrasion resistant, and resistant to corrosive liquids such as dilute acids and alkalis. It possesses a good UV-resistance.

Advantages:

- Crack bridging up to 2 mm.
- Resistant to foot traffic.
- Ideal for balconies and terraces under tile.
- Suitable for moist surfaces.
- Together with KÖSTER NB 1 Grey suitable for negative side waterproofing.
- Cement based system.
- Suitable for mineral substrates such as concrete and brick walls.

Fields of Application

Coatings made of KÖSTER NB Elastic Grey are resistant to wear, elastic, and waterproof. Such coatings can be used for areas subject to mechanical stresses and for areas which might be subject to cracking such as waterproofing layers on terraces and balconies, as protection for concrete surfaces accessible for maintenance, as waterproofing for water tanks, swimming pools, and wet and damp rooms underneath tiles and ceramic coverings. If a waterproofing (2 layers) is made of KÖSTER NB Elastic Grey, the material can also be used as tile adhesive for tiles, (applied as a third layer). It is not suited for waterproofing against negative side water pressure and it is not suited for waterproofing roofs.

- Waterproofing balconies and terraces before laying ceramic tiles.
- Waterproofing swimming pools from the positive side before laying ceramic tiles.

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- Waterproofing hydraulic channels, faces of dams over KÖSTER NB 1 Grey, basins, and tanks.
- Waterproofing plasterboard, render or cementitious surfaces, lightweight cement blocks, and marine-grade plywood.
- Protection of cementitious renders or concrete with cracks due to shrinkage and against water infiltration.
- Protection of concrete pillars and beams against the penetration of carbon dioxide.
- Protection of structures with an inadequate layer of concrete over the reinforcement rods against the penetration of aggressive elements
- Flexible protection layer of new concrete structures or repaired structures.
- Protection of concrete surfaces which may come into contact with sulfates, sea water, and de-icing salts such as sodium or calcium chloride.

Substrate

The substrate has to be sound, solid, and clean. Absorbent substrates should be primed with KÖSTER Polysil TG 500. Non-absorbent substrates are pre-wetted until damp. Avoid standing water on the area to be coated.

New construction:

It is necessary to prepare the substrate correctly to achieve the guaranteed durability. The edges must be rounded with appropriate tools and the surface of the walls must be intensively cleaned with high-pressure water to be cleared of any adhesion-inhibiting substances. The surface roughness must be levelled according to the depth. Level surfaces with a surface roughness depth ≥ 5 mm (i.e. voids and any irregularities in joints or breakouts) with KÖSTER Repair Mortar Plus or KÖSTER Repair Mortar with the addition of a maximum of 30% KÖSTER SB Bonding Emulsion added to the mixing water. In case of surface roughness depth of ≤ 5 mm or by negative side water incursion (i.e. surface irregularities, unevenness or small defects and break outs etc.) level the surface with KÖSTER NB1 Grey with the addition of KÖSTER NB 1 Flex in the mixing water, applied with the KÖSTER Brush for Slurries.

Prime mineral substrates with KÖSTER Polysil TG 500 using a large brush or spray pump. Weakly absorbent or non-absorbent substrates must be pre-wet with water until they are moist.

Restoration:

Clean the surface with high pressure water jet (approx. 400 bar) following proper methods to clear any adhesion-reducing materials. Old coatings must be removed down to a clean mineral substrate. Protect strongly moistened substrates where the moisture is visible and the color of the surface is dark due to moisture by applying KÖSTER NB 1 Grey at least one day prior to waterproofing. Apply with a KÖSTER Brush for Slurries against negative side water incursion. Clean the joints from loose grout and mortar approx. 2 cm deep and subsequently fill with KÖSTER Repair Mortar Plus with a maximum of 30% KÖSTER SB Bonding Emulsion added to the mixing water. Level rough surfaces with a surface roughness depth of ≥ 5 mm (i.e. voids and any irregularities in joints or breakouts) with KÖSTER Repair Mortar Plus or KÖSTER Repair Mortar with a maximum of 30% KÖSTER SB Bonding Emulsion added to the mixing water. In case of surface roughness depth of ≤ 5 mm or by negative side water incursion (i.e. surface irregularities, unevenness or small defects and break outs etc.) level the surface with KÖSTER NB1 Grey with the addition of KÖSTER NB 1 Flex in the mixing water, applied with the KÖSTER Brush for Slurries.

Prime mineral substrates with KÖSTER Polysil TG 500, applied in one work step undiluted to the surface until full saturation (in case of highly absorbent surfaces, apply two coats) by brush or spraying.

Application

Mix both components thoroughly with a low speed, electrically powered mixer while adding the powder component to the liquid component. KÖSTER NB Elastic Grey is applied in at least two layers with a trowel or brush. Processing with the KÖSTER peristaltic pump is also possible. Alternatively, the BMP 6 or BMP 7 can be used, for this purpose a 3/4" hose with max. 10 m hose (nozzle 8.5 mm, engine power 1st gear, speed 50-80%). For improved processing, up to 0.5 liters of water can be added to the material per container. In areas particularly at risk of cracking, KÖSTER Glass Fiber Mesh is embedded in the top of the fresh first layer. Apply at least a second layer. The second layer is applied when the first layer is no longer damaged by the application. For wall/floor joints, corners and details, KÖSTER Flex Fabric must always be embedded in the top of the fresh first layer. Freshly applied KÖSTER NB Elastic Grey must be protected from frost and rain until it is completely cured.

Consumption

approx. 3.4 - 5.1 kg/m²

Explanation of the consumption tables:

W1-E: Soil moisture and non-pressurized water according to DIN 18533: 2017-07

W2.1-E: Moderate exposure to pressurized water (immersion depth ≤ 3 m) according to DIN 18533: 2017-07

W2-B: Tank waterproofing according to DIN 18535: 2017-07 up to ≤ 10 m filling height

W3-E: Non-pressurized water on soil-covered ceilings according to DIN 18533: 2017-07

W4-E: Splash water and soil moisture on the wall base as well as capillary water in and under walls according to DIN 18533: 2017-07

DFT: minimum dry film thickness

WFT: wet film thickness

When used as a MDS (In accordance with DIN 18533-3):

Water exposure class	DFT [mm]	Layers	Consumption [kg/m ²]
W1-E	2.0	2	3.4
W2.1-E*	3.0	2	5.1
W2-B	3.0	2	5.1
W3-E	-	-	-
W4-E	2.0	2	3.4

Consumption according to the DIN 18533.

*: Water exposure class for MDS not included in the DIN but tested by abP. Special agreement required.

The consumption refers to the total layer thickness. To level the substrate up to 5 mm, a scratch coat of KÖSTER NB Elastic Grey is recommended.

Further consumptions:

- As scratch coat approx. 1.2 kg/m²

Cleaning

Clean tools immediately after use with water. Cured material has to be mechanically removed.

Packaging

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33 kg: powder - 25 kg bag, liquid - carton (2 x 4 kg foil bags)

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Storage

Store the material in a cool, frost free and dry environment. 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.

Other

Pallet content: 693 kg (21 unit of 33 kg each)

Pallet size: Euro pallet (1.2 m × 0.8 m × 0.14 m)

Related products

KÖSTER Polysil TG 500	Prod. code M 111
KÖSTER NB 1 Grey	Prod. code W 221 025
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 Repair Mortar Plus	Prod. code W 532 025
KÖSTER WP Mortar	Prod. code W 534 025
KÖSTER SB Bonding Emulsion	Prod. code W 710
KÖSTER Brush for slurries	Prod. code W 913 001
KÖSTER Peristaltic Pump	Prod. code W 978 001

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Technical Data	Product Name: KÖSTER NB Elastic Grey
Material Class	Elastic Cementitious Coating
Temperature range for application	+ 5 °C to + 35 °C
Consumption approx.	3.6 – 4.5 kg / m ²
Layers	2 / no primer (W)
Color	Light Grey
Solvent-Free	Yes
Can be plastered over	+
Mode of application	Trowel, Brushable , Sprayable
Suitable for negative side waterproofing	Sandwich-Waterproofing / over KÖSTER NB 1 Grey
Waiting time until backfilling	>48 hours
Simplicity of application	++
Substrate	
Masonry	+++
Cementitious plaster	+++
Concrete	+++
Polystyrene	+
Old Bitumen membranes	++
Moisture condition of surface	Dry or moist
Plaster	+++
Concrete or ceramic bricks	+++
Screeds	+++
Old ceramic substrates	+++
Gypsum	+
Performance	
Waterproofing against max. load condition	Pressurized Water
Time until rainproof	Approx. 8 hours
Chemical resistance	Good
Permeability to vapor diffusion	Medium
UV-resistance	Long term resistant
Abrasion resistance	+++
Crack bridging	+++
Embedding of a mesh	Yes

Lower+ Medium++ High+++

W wetting is sufficient (substrates should be moist). In case of highly absorbent substrates prime with KÖSTER Polysil TG 500

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