




KÖSTER NB Elastic Grey

Technical Data Sheet W 233 033

Issued: 2019-09-06

Test report Institute of ceramics and building materials, Krakau - Test report according to PN-EN 14891:2012 - Test Nr. 458/13/SG
MPA Bremen, Test report for CO₂ permeability PZ 50808-10
LPI Hannover, Test report for acid resistance of the concrete coating PZ P091103-10

2 component, elastic mineral waterproofing

 0761	KÖSTER BAUCHEMIE AG Dieselstraße 1-10, 26607 Aurich 13 W 233 EN 14891:2012 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	> 2 mm
Crack bridging ability at low temperature	> 1.7 mm (at - 5 °C)
Waterproofing	No penetration
Release of dangerous substances	Accordance with 4.2 (EN 14891)

Crack bridging (2 mm layer thickness)	> 2 mm
Adhesive tensile strength	> 0.5 N / mm ²
Waterproof against pressurized water up to	7 bar
Pot life	approx. 2 hours
Resistant to foot traffic	after approx. 24 hours
Application of following layers after	after approx. 2 days

Results of the MPA Bremen Test Certificate, average layer thickness 1.743 mm

CO ₂ permeability	0.53 g / m ² · 24 h
Sd Value (CO ₂)	806 m
μ value (CO ₂)	4.62 x 10 ⁵

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.

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.

Technical Data

Density (powder and liquid component)	approx. 1.7 g / cm ³
Binder contents (synthetic comp.)	min. 52 % by weight
Application temperature	min. + 2 °C
Tensile elongation (entire system)	> 50 %
Tensile strength	0.7 N / mm ²

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

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.

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.

Application

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.

Preparation of the product and application:

Thoroughly mix both components using a slowly rotating stirring device, while adding the powder component into the liquid component. KÖSTER NB Elastic Grey is applied in at least two coats using a trowel or a brush. On areas which are especially in danger of cracking, KÖSTER Glass Fiber Mesh is embedded into the fresh first layer. Apply at least a second coat on top. On wall / floor junctions, corners and details, KÖSTER Superfleece is always embedded into the fresh first layer. Freshly applied KÖSTER NB Elastic Grey must be protected from frost and rain until it is fully cured.

Consumption

approx. 3.6 - 4.5 kg/m²

Consumption (MTD = Min. dry layer thickness)

Case	MTD	Consumption	Layers
Ground moisture	2 mm	min. 3,6 kg	min. 2
non-retained seepage water	2 mm	min. 3,6 kg	min. 2
Retained seepage water	2,5 mm	min. 4,5 kg	min. 2
Wall/Floor waterproofing	2 mm	min. 3,6 kg	min. 2

Cleaning

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

Packaging

W 233 033 33 kg: powder - 25 kg bag, liquid - carton (2 x 4 kg foil bags)

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 6 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 x 0.8 m x 0.14 m)

Related products

KÖSTER BD Flex Tape K 120	Prod. code B 931
KÖSTER Polysil TG 500	Prod. code M 111
KÖSTER Restoration Plaster White/Fast	Prod. code M 663
KÖSTER NB 1 Grey	Prod. code W 221 025
KÖSTER NB Elastic White	Prod. code W 234 033
KÖSTER Glass Fiber Mesh	Prod. code W 411
KÖSTER Superfleece	Prod. code W 412
KÖSTER Repair Mortar	Prod. code W 530 025
KÖSTER Repair Mortar Plus	Prod. code W 532 025
KÖSTER SB Bonding Emulsion	Prod. code W 710
KÖSTER NB 1 Flex	Prod. code W 721 008
KÖSTER SD Protection and Drainage Sheet 3-400	Prod. code W 901 030
KÖSTER NB 1 Brush for slurries	Prod. code W 913 001
KÖSTER Peristaltic Pump	Prod. code W 978 001

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.

KÖSTER

Waterproofing Systems

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 / coats	++
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

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.

KÖSTER BAUCHEMIE AG • Dieselstraße 1-10 • D-26607 Aurich • Tel. 04941/9709-0 • Fax -40 • info@koester.eu • www.koester.eu