

## KÖSTER NB 1 Grey

Technical guideline / Article number

3.021

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- Official test certificate, Institute for Hygiene, Gelsenkirchen – Tank and tank-lining, according to the regulations of the DVGW, Tech. regulations for potable water
- Test Certificate for approval by the building authorities by the MPA Braunschweig



## Mineral waterproofing system for sealing against pressurised water

### Features

KÖSTER NB 1 Grey is a mineral coating containing crystallising and capillary-plugging agents. It can be used for waterproofing against ground moisture, non-pressurised and pressurised water. Waterproofing undertaken with KÖSTER NB 1 Grey is characterised by excellent resistance to pressure and abrasion as well as excellent resistance to chemicals.

Waterproofing with KÖSTER NB 1 Grey should only be carried out on substrates that are free of moving cracks.

The addition of KÖSTER SB-Bonding Emulsion to the mixing water or respectively the use of KÖSTER NB 1 Flex raises the ability of the material to retain water and prevents, in cases of unfavourable weather-conditions (warm, dry, drought), a premature curing of the coating. KÖSTER SB-Bonding Emulsion also introduces flexibility to the material.

### Technical data

Density of the fresh mortar	1.85 kg / l
Compressive strength (7 days)	> 20 N / mm <sup>2</sup>
Compressive strength (28 days)	> 35 N / mm <sup>2</sup>
Flexural tensile strength (7 days)	> 4.5 N / mm <sup>2</sup>
Flexural tensile strength (28 days)	> 5.5 N / mm <sup>2</sup>
Adhesive tensile strength	> 1.5 N / mm <sup>2</sup>
Waterproof against pressurised water (positive and negative side)	up to 13 bar
Coefficient of water vapour diffusion resistance	60
Pot life	approx. 2 hours
Resistant to foot traffic	after approx. 2 days
Full cure	after approx. 2 weeks

### Fields of application

KÖSTER NB 1 Grey can be used in new building and in repair for horizontal and vertical waterproofing of concrete, masonry or

cementitious plaster in wet rooms, bathrooms, showers, new built basements, tanks, silos, sewage treatment plants, manholes, drinking water tanks etc..

### Substrate preparation

The mineral substrate has to be sound and solid as well as free of grease and oil. Non-absorbent or slightly absorbent substrates have to be wetted (avoid standing water) prior to the application of the sealing slurry. Highly and normally absorbent and dusty or salt-damaged substrates have to be primed with KÖSTER Polysil® TG 500 prior to the application of the sealing slurry.

### Mixing

The material must be mixed using a slow speed mixer whereby the powder should be added to the mixing water or respectively to the polymer liquid. A 25 kg bag of KÖSTER NB 1 Grey is mixed with:

- 6 l of water plus 1 to 2 l KÖSTER SB Bonding Emulsion (positive side waterproofing) or
- 1 jerry can of KÖSTER NB 1 Flex (positive side waterproofing) or
- 8 l of water (negative side waterproofing)

### Application

The material is applied in at least two coats with a brush or a suited spraying device. Make sure that the coating is not exposed to heat, frost and strong wind impact during the application and for at least 24 hours afterwards.

### Special fields of application

**Highly effective waterproofing with bituminous building materials.**

When applying a combined waterproofing system made out

of KÖSTER NB 1 Grey and bituminous coatings (KÖSTER Bikuthan® 1C and 2C, KÖSTER Deuxan® 2C and Professional and KÖSTER KBE Liquid Film), KÖSTER NB 1 Grey can be applied directly to a void free masonry with flush-filled joints. After a curing time of 24 hours, the bituminous coating is brushed, troweled or sprayed on. This substrate preparation reduces the danger of blistering of bituminous building materials on porous substrates and excludes the danger of water infiltration in case of problematic wall- / floor-junctions.

### Negative side waterproofing in case of repair of widespread moisture penetration

Brittle and loose material has to be cleaned out of joints and joints have to be closed flush with KÖSTER Repair Mortar Plus. After a waiting time of approx. 2 hours, the surface, which is going to be sealed, has to be primed with KÖSTER Polysil® TG 500 (Consumption: min. 120 g / m<sup>2</sup>, in case of strongly absorbent substrates up to 250 g / m<sup>2</sup>). After a waiting time of 30 minutes, the first coat of KÖSTER NB 1 Grey is applied (Consumption: 1.5 kg / m<sup>2</sup>). This coat is immediately afterwards hardened by applying KÖSTER Polysil® TG 500 (Consumption: min. 150 g / m<sup>2</sup>). When the first coat of KÖSTER NB 1 Grey has set sufficiently so that it is not damaged by the application of a second coat, a second coat of KÖSTER NB 1 Grey is applied (Consumption: 1.5 kg / m<sup>2</sup>). The final hardening is carried out by application of a coat of KÖSTER Polysil® TG 500 (Consumption: min. 250 g / m<sup>2</sup>). For both coats, KÖSTER NB 1 Grey is mixed using clean potable water without adding KÖSTER SB Bonding Emulsion or KÖSTER NB 1 Flex.

### Consumption

Positive side water proofing: Minimum 1.5 kg / m<sup>2</sup> (one coat) Maximum 4 kg / m<sup>2</sup> (2 - 3 coats)

Negative side water proofing: 3 kg / m<sup>2</sup> (2 coats)

Combined system-waterproofing with bituminous building materials:

Min. 1.5 kg / m<sup>2</sup> (1 coat)

### Cleaning of tools

With water immediately after use

### Packaging

25 kg bag

### Storage

Store the material dry. In originally sealed packages, the material can be stored for approx. 12 months.

### Safety precautions

Wear protective gloves and goggles during processing of the material.

### Technical guidelines cited

KÖSTER KBE-Liquid Film	Art.-No.	1.13
KÖSTER Bikuthan® 2C	Art.-No.	1.14
KÖSTER Bikuthan® 1C	Art.-No.	1.15
KÖSTER Deuxan® 2C	Art.-No.	1.16
KÖSTER Deuxan® Professional	Art.-No.	1.161
KÖSTER SB Bonding Emulsion	Art.-No.	2.11
KÖSTER NB 1 Flex	Art.-No.	3.0211
KÖSTER Polysil® TG 500	Art.-No.	4.011
KÖSTER Repair Mortar Plus	Art.-No.	5.032

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