



T 704 / 0200.ENG

## KÖSTER® NB 1 Grey

### Capillary active, crystallizing, cement based waterproofing slurry

- **Official Test Certificate**, Hygienic – Institute, Gelsenkirchen – Container and Container Coating, acc. To regulation DVGW, Techn. Regulations, Leaflet W 270, Dec. 1990, about the multiplying of micro-organisms on materials for drinking water surroundings
- **Official Test Certificate**, AMPA for stones and ground, Clausthal-Zellerfeld – Test acc. To leaflet for cement bound rigid and flexible sealing slurries (ibh)
- **Official Test Certificate**, Hygenic Institute, Gelsenkirchen – Container and Container Coatings acc. To recommendation of the study group "drinking water interests" of the Synthetics Commission of the Federal Health Authority
- **Official Test Certificate** of Law Engineering Inc., Atlanta, USA – Water Permeability (negative side), water permeability (positive side), abrasion resistance, compressive strength, tensile strength
- **Official Test Report**, College of East Friesland – Water Vapour Permeability

#### **Product Description:**

Turkish product name > KÖSTER NB Sistem

The KÖSTER NB 1 Grey sealing slurry is a mineral coating with excellent capillary sealing properties. It contains crystallizing agents which penetrate deep to fill the voids and capillaries and that react with moisture and ingredients in the substrate to form crystals and thus creating the waterproofing effect, to seal off found moisture, non-pressurized and pressurized water – on both the positive and negative side. The KÖSTER NB 1 Grey sealing slurry becomes integral part with the substrate itself. Once applied to the substrate, it leaves a coating with excellent pressure- and abrasion resistance and has excellent resistance to chemical compounds.

NB 1 Grey should only be used on substrates that are free of cracks. Adding of SB Haftemulsion increases the water retentivity and thus prevents dehydration under unfavourable weather conditions (warm, dry, draught), which may cause crack in the coating. SB Haftemulsion makes the NB 1 Grey sealing slurry more flexible, thus improving its resistance to thermal movements. Because NB 1 Grey reacts with the free lime in the substrate, it uses the strength and decreased porosity

of the substrate to create its waterproofing effect; it can be used on both positive and negative side.

#### **Technical Data:**

<u>Impermeability to positive water pressure</u>	<u>13,8 bar</u>
<u>Impermeability to negative water pressure</u>	<u>13,8 bar</u>
<u>Water vapour permeability</u>	<u>DIN 52 615</u> $\mu = 60$
<u>Application temperature</u>	<u>+5°C to +30°C</u>
<u>Compressive strength (28 d)</u> EN 196-1	<u>27,0 N / mm²</u>
<u>Tensile strength (28 d)</u> EN 196-1	<u>10,0 N / mm²</u>
<u>Adhesion (28 d)</u> ASTM C190-85	<u>2,4 N / mm²</u>
<u>Abrasion resistance (28 d)</u> ASTM D4060-90	<u>0,00027 g/U</u>
<u>Test for usability in potable water reservoirs</u>	
<u>Acc. to DVGW – W270 standart</u>	<u>pass</u>
<u>Resistance to chloride and sulfate</u>	<u>pass</u>
<u>Wet mortar density</u>	<u>1,884 g/cm³</u>
<u>Bulk density of powder</u>	<u>TS 6433</u> <u>1,143 g/cm³</u>
<u>Reaction time</u>	<u>EN 196-3</u> <u>Start 355 min</u>
	<u>EN 196-3</u> <u>End 460 min</u>

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## Waterproofing Systems

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### Applications:

KÖSTER NB 1 Grey sealing slurry seals horizontal and vertical surfaces made of concrete, masonry or cementitious plaster (only positive side) in damp rooms, bathrooms, shower rooms, new basements, containers, swimming pools, silos, sewage plants, shafts, retaining walls, planters etc.

KÖSTER NB 1 Grey sealing slurry can be used on both positive and negative side, provided that access to the base substrate is possible (e.g. the internal wall of a basement is stripped off plaster for treatment directly on the base wall).



### Instructions:

**Job Conditions** - Air and surface temperature for application must be +5°C to +30°C and must remain so for a minimum of 24 hours.

**Temporary Protection** - Shall be provided at all times until the material is fully cured.

**Surface Preparation** - The surface has to be sound and solid, free of laitance, paint, dust, form oil and other contaminants that might affect the bonding adversely. Suitable tools are wire brushes, high-pressure water jets, sand and shot blasting. Cracks and surface honeycombs should be chiselled open so that application of an even uniform coat can be achieved. Smaller honeycombs, cracks and depressions should be filled with KÖSTER Repamor THIN and be allowed to dry for 24 hours before commencing. Cracks, honeycombs and depressions larger than 5 mm should be filled with KÖSTER Repamor and be left for curing for at least 24 hours.

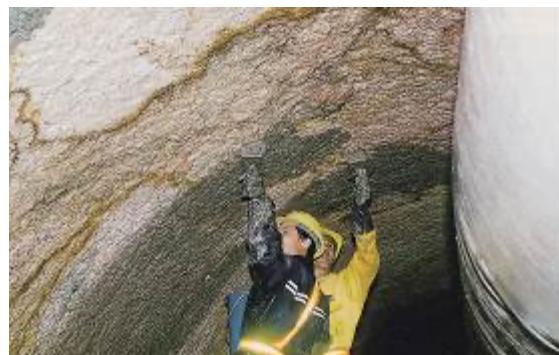
Surfaces must be damped before application but water ponding should be prevented.

**Primer** - Dusting, weak or salt efflorescence containing surfaces should be primed with KÖSTER Polysil TG 500.

**Mixing** - One bag (25 kg) of KÖSTER NB 1 Grey should be mixed with 3 kg KÖSTER SB Haftemulsion and 6,0 – 7,0 lt of clean water. The powder should always be added to the water slowly and during continuous mixing action with power mixer equipped with mixing paddle.

**Subsequent Layers** - Apply the sealing slurry with a firm brush or a suitable spraying device. Allow every coat to dry completely before applying the next one.

Do not apply layers thicker than 1,0 mm in a single coat.



### High Security Waterproofing:

The system consists of NB 1 Grey as the first layer and a flexible bitumen based waterproofing material as the second layer.

Apply NB 1 Grey to the concrete or full joint masonry. Surfaces and wait at least 24 hours before applying the bituminous combination waterproofing material (KÖSTER KBE-Liquid Film or KÖSTER Deuxan 2K).

This system minimizes the bubble formation beneath bituminous materials on porous surfaces and does not allow the moisture to penetrate the bituminous material from the behind.

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### **Negative Side Waterproofing of Basements:**

KÖSTER NB 1 Grey should always be applied to the concrete base material. On negative side waterproofing applications never apply the slurry on the plaster. For weak, dusting or salt efflorescence containing surfaces always prime the surface with KÖSTER Polysil TG 500 (app. 125 g/m<sup>2</sup>).

### **Consumption:**

<u>Against ground moisture min.</u>	<u>2,0 kg/m<sup>2</sup> in 2 layers</u>
<u>Against non-pressurized water min.</u>	<u>3,0 kg/m<sup>2</sup> in 2 layers</u>
<u>Against pressurized water min.</u>	<u>4,0 kg/m<sup>2</sup> in 3 layers</u>
<u>Waterproofing from the negative side min.</u>	<u>3,0 kg/m<sup>2</sup></u>
<u>NB 1 Grey combination with bituminous materials min.</u>	<u>2,0 – 2,5 kg/m<sup>2</sup> in 1- 2 layers</u>

### **Packaging:**

<u>Powder component</u>	<u>NB 1 grey</u>	<u>25 kg bag</u>
<u>Liquid component</u>	<u>SB Haftemulsion</u>	<u>3 lt container</u>

Powder and liquid components are sold as a set (28kgs). Components cannot be purchased separately.



### **Cleaning of Tools:**

Clean tools with water while material is still wet.

### **Notes:**

Do not apply below +5°C or if temperatures below +5°C are expected within 24 hours. Do not apply on wet or frozen surfaces. Do not apply on dusting or weak surfaces. If in doubt, perform adhesion test.

### **Storage:**

Containers must be stored at +5°C to +30°C in tightly sealed containers. Keep out of direct sunlight, protect from water and freezing.

### **Shelf Life:**

12 months.

### **Caution:**

Powder component contains cement. Avoid contact with skin and eyes. Wear suitable protective clothing, gloves and eye / face protection. After contact with skin, wash immediately with plenty of water and soap. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. For additional references to safety-hazard warnings, regulations regarding the transport and waste management please refer to the relevant Material Safety Data Sheet.



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2184–CPR – 0197 DOP NO: 001

EN 1504-2:2004

KÖSTER – NB Sistem

Kristalize su yalıtım ürünü

Kaplama uygulaması (C)2.2

Kristalize su yalıtım ürünü

Su buharı geçirgenliği (EN ISO 7783-1, EN ISO 7783-2)

Sınıf I

Kapiler su emme ve su geçirgenliği (EN 1062-3)

w <0,1 kg/m<sup>2</sup> .h<sup>0,5</sup>

Çekip koparma deneyi yoluyla yapışma dayanımı (EN 1542)

Trafik yükü olmadan Çatık kapatma veya esnek sistemler  $\geq 0,8 \text{ N/mm}^2 (0,5)$ <sup>b</sup>

Reaction To Fire (EN 13501-1) Yangına Karşı Tepki

C

Dangerous Substances Tehlikeli Maddeler

In accordance with article 5.3 Madde 5.3'e uygun



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