



KOSTER NB 1 Grey

Positive and negative side cementitious waterproofing

Features

KOSTER NB 1 Grey is a rigid coating for waterproofing masonry and concrete. It forms a waterproof barrier on the substrate and it contains pore/capillary plugging and crystallizing agents. These penetrate into the substrate where they form crystals which fill voids and capillaries, producing an integral waterproofing effect. KOSTER NB 1 Grey is approved for use in drinking water environments according to NSF/ANSI 61. KOSTER NB 1 Grey is used on the positive or negative side of structures. It resists over 200 psi of hydrostatic pressure and is a permanent waterproofing system as long as the substrate remains sound. Freezing and thawing cycles will not affect the material. KOSTER NB 1 Grey is supplied in powder form. It can be mixed with water or a solution of KOSTER SB Bonding Emulsion and water. KOSTER SB Bonding Emulsion is added to improve curing and adhesion. KOSTER SB Bonding Emulsion also improves the abrasion resistance and elastic properties of the material.

Technical Data

Fresh mortar density	15.4 lb/gal
Pot life, 70 °F	Approx. 2 hours
Color	Grey
Resistant to foot traffic	Approx. 2 days
Full cure	Approx. 2 weeks
Compressive strength (28 days)	> 3330 PSI (ASTM C109)
Tensile strength (28 days)	340 PSI (ASTM C190)
Abrasion resistance (28 days)	2.7 x 10 ⁻⁴ (gram per cycle, ASTM 4060)
Pull-off strength	> 170 PSI (100% break in substrate)
Water permeability, negative side (28 days)	200 PSI
Water permeability, positive side (28 days)	200 PSI
Vapor permeability (28 days)	μ = 60 (DIN 52 615)
Potable water certification	Approved, NSF 61

Fields of Application

KOSTER NB 1 Grey can be used in new construction and repair for horizontal and vertical waterproofing of concrete, masonry or cementitious plaster, on porous concrete, shotcrete, in wet rooms, bathrooms, showers, basements, elevator shafts, tunnels, leaking retaining walls, leaking ceilings, tanks, silos, sewage treatment plants, manholes, and drinking water tanks.

Substrate

Surfaces to be waterproofed with KOSTER NB 1 Grey must be sound, solid, and free of bonding inhibiting agents such as grease, oil, laitance, loose particles, dust, form release oil, or curing compounds. The substrate must be absorptive. Open up surface honeycombs to ensure an uninterrupted, even coating application. Open static cracks wider

than 1/32-in to a minimum of 1/2-in x 1/2-in and repair with KOSTER Repair Mortar at least 24 hours prior to application of KOSTER NB 1 Grey. Treat moving cracks as expansion joints. Dampen substrates or treat with KOSTER Polysil TG 500 before application of KOSTER NB 1 Grey. Brush and prime dusty or salt-damaged substrates with KOSTER Polysil TG 500 before application of KOSTER NB 1 Grey. Never apply KOSTER NB 1 Grey over standing or running water.

Application

Mixing:

Mix using a slow speed mixer, adding the powder to the liquid in portions. Mix one 55 lb bag of KOSTER NB 1 Grey with one of the following:

- 6.5 qt of water plus 2 qt of KOSTER SB Bonding Emulsion or,
- 8.5 qt of water

The addition of KOSTER SB Bonding Emulsion to the mixing liquid increases the ability of the material to retain water and prevents premature drying of the coating in cases of unfavorable weather conditions. When used in contact with drinking water, do not add KOSTER SB Bonding Emulsion to the mix. This will negate the Drinking Water Certification.

For negative side waterproofing applications, do not use KOSTER SB Bonding Emulsion for the first coat. It can be added into the mixing liquid for the second coat.

Application:

Apply the material in at least two coats with a brush or a suitable spraying device. Make sure the coating is not exposed to heat, frost, or strong wind during application and for at least 24 hours afterwards. Brush the material both vertically and horizontally to work into the substrate. Mist first coat with water to promote curing.

Waterproofing with bituminous building materials:

When applying a combined waterproofing system of KOSTER NB 1 Grey and bituminous coatings (KOSTER Deuxan or KOSTER KBE Liquid Film), KOSTER NB 1 Grey can be applied directly to a void free masonry with flush-filled joints. After 24 hours, install the bituminous coating by brushing, troweling, or spraying. Preparing the substrate with KOSTER NB 1 Grey increases the reliability of the system significantly, and serves as an additional waterproofing layer. It prevents lateral movement of water and functions as a negative side waterproofing during the construction phase.

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

Active leaks and water weeping down a wall can be stopped with KOSTER KD 2 before application of KOSTER NB 1 Grey. Clean brittle and loose material out of joints, and repoint joints with KOSTER Repair Mortar Plus. After approx. 2 hours, prime the surface to be sealed with

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 installer is responsible for the correct application taking into consideration the specific conditions of the construction site and 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 deviate from the specifications contained in any Company literature may not be relied upon in the absence of written confirmation from the Company. The installer must comply with all testing, technical requirement, guidelines, and industry customs at all times. The terms, conditions, and limitations contained in the written warranty for the product controls over the specifications contained herein. This guideline has been technically revised; all previous versions are invalid.

