

KÖSTER Polysil[®] TG 500

Technical guideline / Article number **4.011**
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Deeply penetrating primer for damp and salt-containing substrates Liquid hardener for sealing slurries

Description

KÖSTER Polysil[®] TG 500 is a thin fluid product based on a polymer and silicate combination. On salt-containing and on damp substrates, it leads to a reduction of the pore volume and thus decreases the danger of new development of salt efflorescence. It also increases the chemical and mechanical resistance of mineral building materials. Depending on the substrate, the product penetrates the surface up to 2 cm deep. KÖSTER Polysil[®] TG 500 also has strengthening and hydrophobing properties. The material is compatible with mortars, plasters, cementitious slurries and with concrete.

Technical data

Application temperature	min. 5 °C
Specific gravity	1.03 g/cm ³
Surface	transparent, slightly sticky
Elongation at break	approx. 500%
Application of next layer:	
- after 30 minutes	- cementitious building materials
- after min 24 hours	- acrylate and silicate paints

Field of application

KÖSTER Polysil[®] TG 500 is used to strengthen and to protect mineral substrates and to reduce their absorbency, even of such problematic building materials as sandstone. KÖSTER Polysil[®] TG 500 decreases the danger of new development of salt efflorescence and raises the resistance of mineral substrates to freezing and thawing. KÖSTER Polysil[®] TG 500 can also be used to harden sealing slurries. It does not cause shell building. All mineral substrates are suited for application (except for gypsum). Furthermore, KÖSTER Polysil[®] TG 500 can be used as primer underneath subsequent layers of plastic-modified bitumen thick film sealants such as KÖSTER Deuxan[®] 2C Extratight, KÖSTER Bikuthan[®] 2C Supertight and so on.

Substrate

KÖSTER Polysil[®] TG 500 can be applied to weakly and to strongly absorbing, to dry and to moist substrates. The substrate has to be

free of oil and loose particles. Salt efflorescence must be removed prior to application of KÖSTER Polysil[®] TG 500 e. g. by brushing.

Application

Deeply penetrating priming:

KÖSTER Polysil[®] TG 500 can be brushed or sprayed on. During the curing time, the surrounding and substrate temperature must not fall below 0 °C. Salts which came through the surface of the substrate during the curing process must be removed by brushing. After full cure, no more salts will come to the surface.

Waterproofing from the inside using rigid sealing slurries

In order to construct extremely resistant coatings using KÖSTER NB I Grey, the substrate is first primed with KÖSTER Polysil[®] TG 500 and is, after approx. 30 minutes, covered with KÖSTER NB I Grey (without addition of KÖSTER SB-Bonding Emulsion "Concentrate"). Immediately after applying the slurry, it is coated with KÖSTER Polysil[®] TG 500. After a short setting time, another slurry coat is applied which is then immediately hardened with KÖSTER Polysil[®] TG 500.

Surface protection

To strengthen and improve the chemical and mechanical resistance of mineral building materials, KÖSTER Polysil[®] TG 500 is sprayed, rolled or brushed onto the substrate (Consumption approx. 130 – max. 200 g/m²). The protective coating is fully resilient after approx 16 hours.

Consumption

As deep penetrating primer:	approx. 100 to 130 g / m ²
Double this amount is possible on strongly absorbent substrates	
As hardener of slurries:	approx. 200 to 250 g / m ²
Under bituminous thick film sealants:	approx. 150 g / m ²
Double this amount is possible on strongly absorbent substrates	

Cleaning of tools

Clean tools immediately after use with water.

Packaging

10 kg jerry can, 1 kg bottle

Storage

If the material is stored in originally sealed containers in a cool and frost-free place, it can be stored for approx. 12 month.

Safety precautions

Wear protective gloves and goggles during application.

Technical guidelines cited

KÖSTER Bikuthan® 2C Supertight	Art. - No.	1.14
KÖSTER Deuxan® 2C Extratight	Art. - No.	1.16
KÖSTER NB 1 Grey	Art. - No.	3.021
KÖSTER Restoration Plasters	Art. - No.	5.061-5.068

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.