

## Silicate Mortar

- Official test certificate of the MFPA Leipzig

### 2 comp. silicate-based highly chemical-resistant mortar

#### Features

KÖSTER Silicate Mortar is a special mineral mortar on the basis of silicates with a very high resistance to acids. The fully cured mortar possesses a very high compressive strength and a high resistance to abrasion.

#### Technical data

|   |                  |  |
|---|------------------|--|
| Base                                    | powder component | Cement-free powder-mixture of quartz and inorganic additives             |
|   | liquid component | Watery silicate solution   |
| Max. grain size in powder               |                  | 0.4 mm   |
| pH value liquid component               |                  | approx. 11   |
| Range of application                    |                  | pH 0 to 7  |
| Pot life at 15 °C                       |                  | 45 min   |
| Specific gravity (ready mixed)          |                  | 2.1 g / cm <sup>3</sup>  |
| Compressive strength: (after 24 h)      |                  | > 15 N / mm <sup>2</sup>   |
| Flexural tensile strength: (after 24 h) |                  | 1.4 N / mm <sup>2</sup>  |
| Long term resistant against             |                  | Salts which harm building substance, oils, greases, acids (down to pH 0) |

#### Field of application

KÖSTER Silicate Mortar can be used for sealing horizontal and vertical surfaces of all mineral substrates such as concrete, masonry and cement plaster in moist and wet areas, which are exposed to increased chemical stresses by acids, and for heavy duty corrosion protection.

Note: When using the material as a heavy duty corrosion protection against acids, the application case has to be approved by the technical department of KÖSTER BAUCHEMIE.

#### Substrate preparation

The mineral substrate has to be flush, clean, sound and solid. Substances that can affect bonding adversely such as bitumen, paint, oil, dust, cement slurry and so on must be removed mechanically. Damaged concrete must be removed down to the solid base layer. The substrate has to have a minimum adhesive tensile strength of 1.5 N/mm. In cases where substrates have previously been damaged by acids, it is necessary to apply a layer of KÖSTER NB 1 Grey sealing slurry without the addition of KÖSTER SB Bonding Emulsion to the substrate. The sealing

slurry has to cure for at least 24 hours (at 15 °C) before KÖSTER Silicate Mortar can be applied.

#### Application

The substrate should be wetted so that it is matt moist (not necessary in case of substrate preparation with KÖSTER NB 1 Grey). Mix KÖSTER Silicate Mortar in the required mixing ratio in a clean container to a plastic mortar using a suited mixer (recommended is the use of a double basket-shaped agitator). Add the powder component in portions into the liquid component and mix in each portion separately. The material is applied using a plastering trowel in a maximum layer thickness of 5 mm in one work step. The application is carried out in multiple layers fresh on fresh. KÖSTER Silicate Mortar is cement free, do not add water. Material that has started to set may not be mixed up for use again. The mortar must be protected from moisture or water for at least 24 hours.

#### Cleaning of the tools

Clean tools immediately after use with water.

#### Consumption

Approx. 2.1 kg / m<sup>2</sup> per mm layer thickness

#### Storage

Store the material dry; in originally sealed packages, it can be stored approx. 12 month.

#### Packaging

|                  |                  |
|------------------|------------------|
| Powder component | 24 kg bag        |
| Liquid component | 5.5 kg jerry can |

#### Safety precautions

The liquid component contains silicate and is caustic when coming into contact with skin, eyes or the mucous membrane. Wear protective gloves and goggles when processing the material.

#### Technical guidelines cited

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| KÖSTER NB 1 Grey | Art.-No. | 3.021 |
|------------------|----------|-------|

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.