

KÖSTER

PSM

Technical guideline / Article number
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5.18

3-component high chemically resistant mortar on polymer- and silicate-base

Features

KÖSTER PSM is a special mineral mortar on polymer- and silicate-base with high resistance to acids. The fully cured mortar possesses a high compressive strength and is abrasion resistant.

Technical data

Basis	Powder comp.	Cement free powder mix made of sand and anorganic additives
	Polymer comp.	Polyurethane pre-polymer
	Silicate comp.	Water-based silicate solution
Max. grain size		0.4 mm
pH-value silicate comp.		approx. 11
Field of application		pH 0 bis 8
Pot life at 15 °C		20 min
Density (mixture)		1.9 g / cm ³
Compressive strength (24 h)		> 5 N / mm ²
Long term resistant to		Damaging salts, oils, fats, acids (up to pH 0)

Field of application

KÖSTER PSM is intended for waterproofing horizontal and vertical areas on all mineral substrates such as e. g. concrete, masonry, cementitious plaster, in moist and wet areas, in areas which are exposed to high chemical stresses due to acids and for heavy duty corrosion protection.

Substrate

The mineral substrate must be dry, level, clean and sound and solid. Substances which inhibit the adhesion such as e. g. bitumen, paint, oil, dust, cement slurry etc. must be removed mechanically. Damaged concrete must be milled down to the sound and solid concrete substrate. Minimum adhesive tensile strength to the substrate must be 1.5 N/mm². Substrates which have been damaged by acids must be milled until the undamaged substance of the substrate is reached.

Mixing

The resin component and the silicate component are mixed in a clean bucket (which has sufficient volume for the total packaging amount) using a slow rotating mixing device until the mixture has a homogeneous consistency. A homogeneous consistency is

reached when the liquid becomes caramel-coloured. This should be the case after approx. 20 seconds of mixing. The pot life starts when the two liquids have been mixed together. Now swiftly mix the powder component into the prepared resin/silicate mixture while continually operating the mixing device. Attention: Maximum mixing time: 3 minutes. Longer mixing times will reduce the pot life.

Application

The material is applied using a plastering or a standard trowel in a layer thickness of approx. 5 mm per coat. When applying several layers, the application is done fresh in fresh. Maximum time between application of layers is 24 hours. When applying KÖSTER PSM on a substrate prepared with a coating of KÖSTER NB 1 Grey, the temperature at the time of application must be at least + 3 °C higher than the dew point temperature. For the installation of fillets (e. g. when coating tanks), KÖSTER Repair Mortar Plus must be used. The surface of the applied coating made of KÖSTER PSM must only be smoothed by pulling a plastering trowel over the surface, not by rubbing in a circular motion with a float. KÖSTER PSM is cement free; do not add water under any circumstance. Cured material can not be stirred up again. The mortar must be protected for at least 24 hours from contact with moisture and water.

Cleaning of tools

Clean tools immediately after use with acetone, N-Methylpyrrolidon or with KÖSTER KB-PUR Cleaner.

Consumption

Approx. 1.9 kg / m² per mm layer thickness

Storage

Store the material in a dry place; in originally sealed packages, it can be stored for approx. 6 month.

Packaging

Powder component	24 kg bag
Polymer component	1.25 kg cannister
Silicate component	5.5 kg cannister



Safety precautions

Silicates act acidic when coming in contact with skin, eyes or mucous membranes. The resin component contains iso-cyanates and is hazardous to health. Wear tightly closed protective goggles, solvent-resistant and solvent-proof gloves as well as long sleeved protective work cloth.

Technical guidelines cited

KÖSTER KB-Pur Cleaner	Art.-No.	9.10
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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.