



KÖSTER Thermal Restoration Plaster

Technical Data Sheet M 673

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Restoration plaster, thermal insulation plaster, and anti-mold plaster

Features

KÖSTER Thermal Restoration Plaster is a pure mineral insulating plaster with good thermal insulation properties that is free of plastics. It prevents mold growth and can be used instead of restoration plaster.

KÖSTER Thermal Restoration Plaster is used for the pollutant-free restoration of existing masonry and is suitable for heavily moisture and salt-contaminated substrates. The compressive strength is comparable to other thermal insulation plasters.

Due to the use of approx. 50% high-quality recycled raw materials, this plaster is ecologically sustainable in several aspects.

Due to its pore structure and water-repellent properties, the KÖSTER Thermal Restoration Plaster allows the masonry to dry and desalinate without damage, even at high salt levels.

The KÖSTER Thermal Restoration Plaster is not a sacrificial plaster but is used for permanent restoration, it is highly open to diffusion and improves the indoor climate.

Technical Data

Water requirement	40%
Density of fresh mortar	0.65 kg/l
Air pore volume (Fresh mortar)	≥ 30 Vol-%
Layer thickness	up to 5 cm
Setting time	after approx. 60 min.
Solid mortar bulk density	0.5 kg/l
Compressive strength (28 days)	≤ 2 N / mm ²
Compressive strength class	CS I
Flexural bending strength (28 days)	≤ 1.5 N / mm ²
Porosity	≥ 40 Vol-%
Thermal conductivity (DIN 4108)	λ = 0.14 W/(mK)
Water uptake coefficient	w ≤ 2 kg/m ² *√h
Water vapor diffusion resistance	μ ≤ 15
Water uptake	≤ 5 mm
Capillary water uptake	W1
Reaction to fire (EN 13501)	A2 - s1, d0

Fields of Application

For the repair of masonry damaged by moisture and salt, especially after the installation of a horizontal barrier. The installation of a horizontal barrier and the KÖSTER Thermal Restoration Plaster is suitable for all moisture and salt levels in masonry. For improving the insulation value of the masonry and for use against mold growth.

Substrate

Suitable substrates are masonry made of brick, natural stone, plane block, perforated brick, mixed masonry, etc., and waterproofing slurries (e.g. KÖSTER NB 1 grey or KÖSTER NB 2 white, KÖSTER KD System). Loose material and salt efflorescence must be removed mechanically before starting repair work. The substrate must be primed with KÖSTER Polysil TG 500 before plastering (consumption 100 g/m², up to 250 g/m² for highly absorbent substrates). Deep break-outs must be filled in advance with KÖSTER Repair Mortar flush with the surface. The surface must be left roughened and sufficiently cured (min. 24 hrs.) before the following working process.

Plaster Key:

After priming with KÖSTER Polysil TG 500, KÖSTER Restoration

Plaster Key is applied in a maximum layer thickness of 5 mm with a coverage of 50 %. (Consumption: approx. 2.0 - 3.0 kg/m²). The waiting time for application of the next layer/system is at least 30-60 minutes.

Application

KÖSTER Thermal Restoration Plaster is mixed with approx. 5.0 liters of water per 12.5 kg bag to a workable mortar. The water quantity is placed in a mixing vessel. The powder is to be added in slowly while continuing mixing. We recommend a double compulsory mixer. A mixing time of 3 minutes must be ensured. The fresh material is to be applied directly.

The plaster is applied in one or more layers. The plaster thickness is min. 1 cm. The maximum layer thickness on the surface is 5 cm. From 3 cm and in unfavorable weather conditions, work must be carried out in several layers. In case of different system compositions, please contact our technical department.

After leveling the substrate's roughness and applying the KÖSTER Restoration Plaster Key, the first layer of the KÖSTER Thermal Restoration Plaster is applied and leveled with a trowel or straight edge to a layer thickness of 3 cm. Immediately afterward, the KÖSTER Glass Fiber Mesh is embedded into the surface. After a minimum of 60 minutes, the second layer of KÖSTER Thermal Restoration Plaster is applied in a layer thickness of max. 2 cm and also leveled with a trowel or straight edge. After sufficient curing, the plaster is rubbed off with a wooden or plastic board and finally finished with a sponge board.

KÖSTER Thermal Restoration Plaster can be rubbed off after a period of approx. 1-3 hours, depending on humidity and temperature. After the first rubbing off, do not moisten the plaster again, and rub off a second time. Alternatively, the plaster can be smoothed with a grate float after hardening.

For surface smoothing in interior areas, KÖSTER Hydrosilicate Adhesive SK can be applied in a layer thickness of up to 2 mm. The application can be carried out after 24 hours at the earliest.

In case of deviating layer build-up, please contact our Technical Service.

Aftertreatment

In general: Allow one day drying time per mm plaster layer thickness. The KÖSTER Thermal Restoration Plaster must be recoated with systems that are open to diffusion.

Consumption

Approx. 5 kg / m² per cm layer thickness

Note: Consumption data may vary depending on substrate and application. Exact consumption values are to be determined by test areas on the object. In practice, additional consumption due to the roughness and absorbency of the substrate must be taken into account.

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.

Cleaning

Clean tools immediately after use with water.

Packaging

M 673 012 12.5 kg bag

Storage

Store in dry conditions. In originally sealed bags the material can be stored for a minimum of 12 months.

Safety

Wear gloves and goggles when processing the material. Observe all local, state, and governmental safety guidelines while processing the material.

Related products

KÖSTER Polysil TG 500	Prod. code M 111
KÖSTER Restoration Plaster Key	Prod. code M 154 025
KÖSTER Hydrosilicate Adhesive SK	Prod. code M 170 020
KÖSTER Renovation Paint White	Prod. code P 260 010
KÖSTER Glass Fiber Mesh	Prod. code W 411
KÖSTER Repair Mortar	Prod. code W 530 025

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