1. Product description

Mineral dry bagged masonry restoration mortar based on Trass with hydraulic binders.

2. Field of application

KEIM Restauro-Top is a natural stone/masonry replacement material for surface zones. KEIM Restauro-Top is used for reproducing the color and texture of the original stone. Can be applied directly on the damaged masonry substrate, or it may also be cast in open forms.

3. Product properties

Material characteristics

acc. to WTA technical bulletin 3-11-97/D

- Bulk density: approx. 1.40 g/cm³
- Water consumption: approx. 0.13 - 0.16 l/kg (approx. 4.4 – 5.4 fl oz per kg)
- Working time: at most 45 minutes
- Setting time: approx. 5 hours
- Compressive strength: approx. 10 N/mm²
- Bending tensile strength: approx. 4.1 N/mm²
- Modulus of elasticity: approx. 9.0 KN/mm²
- Thermal dilatation: $7 \times 10^{-6}$ (1/K)
- Hygric dilatation: 1.6 mm/m

Color shade

Shades from KEIM’s natural stone color swatches. Special shades to match stone sample on request. Only certain shades from KEIM’s Palette Exclusiv range are available (see table in this document). All shades can be mixed with one another. Color shades are adjusted for cast surfaces which are carved and finished. Slight variations in shade due to tooling, differing temperatures, levels of atmospheric humidity and amount of water used in the mix cannot be ruled out.

4. Application instructions

Application temperature

Ambient and substrate temperature must not fall below +5°C (41°F).

Substrate preparation

Chisel out old masonry:

Chisel out defective natural stone/masonry which is to be repaired with KEIM Restauro system. Masonry should be chiseled back to a sound base using a notched chisel or similar tools. Especially on flat areas of natural stone, a box-shaped recess 2 cm/0.8 in. in depth should be formed when chiseling back to provide a good key for the restoration mortar. If, for sculptural reasons, chiseling back in this manner is not feasible, care must be taken at least to ensure that the edges of the damaged area do not feather out.

Cleaning:

Any stone dust must be carefully removed from the areas to be repaired with compressed air or with clean water and a brush.

Pre-wetting:

The restoration mortar must only be applied onto a moist substrate. Adequate pre-wetting is absolutely essential. Surface should be wet but with no standing water, remove any excess water with a sponge.

Application

Mixing:

KEIM Restauro-Top is mixed with water only, approx. 4 l (1.06 gal) per 30 kg. Use a hand mixer or professional mixer for larger quantities. After a maturing period of 5 minutes, the mortar should have the consistency of moist soil.
Application:
The matured mortar is applied (pressed) onto the roughened and pre-wetted damaged area, for example using a trowel, ensuring that the layer thickness does not exceed 3 cm/1.2 in. The final layer should stand at least 2 mm/0.08 in. proud of the original stone surface to allow for the required finishing.

Finishing:
While the product is still setting, after approx. 2 - 4 hours, KEIM Restauro-Top may be finished with KEIM Restauro carving tools or similar masonry tools that were used to reproduce the original surface. Milling with a rough stone disk is also possible. Total working time can be as long as 8-12 hours depending on conditions.
At least 8 days must elapse before finishing using masonry techniques is possible. Protect freshly applied mortar from sun, wind and rain for 48 hours.

Consumption
Approx. 20 kg per m² (10.8 sq ft) at a layer thickness of 1 cm (0.4 in.)
Approx. 4.7 kg / sq.ft / 1 in. thickness

Cleaning of tools
Clean with water immediately after use.

Note
Final color shading and matching can be performed with KEIM Restauro-Lasur if needed at least 10 days after final application of Restauro-Top.

5. Packaging
30 kg sacks

6. Storage
12 months in original unopened sack under dry conditions.

7. Hazardous substances

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R 38: Irritating to the skin.
R 41: Risk of serious damage to the eyes.
S 2: Keep out of reach of children.
S 22: Do not breathe dust.
S 24/25: Avoid contact with skin and eyes.
S 26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S 37/39: Wear suitable gloves and eye/face protection.
S 46: If swallowed, seek medical advice immediately and show this container or label.

8. Transport hazard class
n/a

9. Disposal

EC Waste Code no. 17 01 01
Any residues must be emptied out of sacks before recycling.
Solidify any residual material with water and, after consulting the relevant authorities, dispose of in a building material landfill site.
10. Safety instructions

Provide appropriate protection for surfaces which are not to be treated. Any splashes on surrounding surfaces or traffic areas must be rinsed off immediately with water. Protect the eyes and skin from splashes. When using, do not eat, drink or smoke. Keep out of reach of children.

The stated values and properties are the result of extensive development work and practical experience. Our recommendations for application, whether given verbally or in writing, are intended to provide assistance in the selection of our products and do not establish a contractual relationship. In particular, they do not release those purchasing and applying our products from the duty of establishing for themselves, with due care, the suitability of our products for the intended application. Standard building industry practices must be complied with. We retain the right to make modifications to improve the products or their application. This edition supersedes all earlier editions.

Colors of the KEIM Palette Exclusiv

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Colors with higher tolerance

These colors cannot be supplied