



# **KÖSTER Restoration Plaster White**

Technical Data Sheet M 662 025

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- Test report according to DIN EN 998-1, MPA BAU Hannover

# White salt- and moisture resistant restoration plaster for inside and outside use



# KÖSTER BAUCHEMIE AG

Dieselstraße 1-10, 26607 Aurich 13 M 662 EN 998-1:2010 Restoration Plaster (R)

EN 998-1:2010 ZA.1

Compressive strength 28 d Capillary water uptake

Tensile strength
Dry density

Depth of water penetration Coefficient of water vapor permeability

Reaction to fire

CS II

> 0.3 kg/m<sup>2</sup> after 24 h 0.05 N/mm<sup>2</sup> failure type A

1.05 kg/dm³ ≤ 5 mm µ 15

Α1

#### **Features**

KÖSTER Restoration Plaster White is a salt and pressure resistant restoration plaster for the restoration of heavily moisture and salt burdened substrates. Due to its high porosity and hydrophobicity, KÖSTER Restoration Plaster White allows for the damage free drying and de-salting of masonry even in the case of high salt contents. It improves the insulative properties of the wall and therefore helps prevent the formation of condensate. KÖSTER Restoration Plaster White is free of light fillers and therefore requires no further surface treatment prior to the application of breathable paints or wallpaper which is open to vapor diffusion.

#### **Technical Data**

Density of fresh mortar	1.3 kg / I
Porosity of fresh mortar	34 V-%
Compressive strength (7 days)	> 5 N / mm <sup>2</sup>
Flexural tensile strength (28 days)	> 2.5 N / mm <sup>2</sup>
Porosity of cured plaster	approx. 41 V-%
Setting time	approx. 3 hours
Modulus of elasticity	> 6000 N / mm <sup>2</sup>
Water consumption per 25 kg bag	3.1 - 3.6

# **Fields of Application**

KÖSTER Restoration Plaster White is suitable for the repair of moisture and salt damaged masonry, also after the post installation of a horizontal barrier with KÖSTER Crisin 76, KÖSTER Mautrol, KÖSTER Mautrol 2C, or KÖSTER Mautrol Flex 2C. It can be applied to reduce the formation of condensate after waterproofing rooms with high humidity using mineral sealing slurries such as the KÖSTER KD System or KÖSTER NB 1 Grey.

KÖSTER Restoration Plaster White can also be used as a water repellent exterior plaster. In the case of exterior application we recommend the application of KÖSTER Repair Mortar on the base area up to 30 cm above ground level.

#### Substrate

Suitable substrates include concrete, masonry consisting of brick, natural stone, porous concrete block, perforated brick, mixed masonry, etc., sealing slurries such as KÖSTER NB 1 Grey, KÖSTER NB 2 White, or the KÖSTER KD-System. Prior to the application of KÖSTER Restoration Plaster White, the substrate is primed with KÖSTER Polysil TG 500 with a minimum consumption of 120 g / m². Apply the KÖSTER Polysil TG 500 until the surface is saturated. In the case of strongly absorbent substrates the consumption can be up to 250 g / m². Loose particles and salt efflorescence should be removed mechanically prior to the beginning of the restoration. Substrates containing gypsum are not suitable substrates and the gypsum must be removed.

## Application

#### KÖSTER Restoration Plaster Key

A plaster key is a thin slurry which is used as a bonding bridge between the substrate and the Restoration Plaster. The KÖSTER Restoration Plaster Key is cast onto the substrate with a brush or a trowel (Consumption approx. 4-6 kg /  $m^2$ ) so that the plaster key is no thicker than 5 mm and covers approximately 50% of the area. After hardening (approx. after 30 to 60 minutes) the Restoration Plaster can be applied. The key can also be made of KÖSTER Restoration Plaster White with the addition of max. 10% KÖSTER SB Bonding Emulsion added to the mixing water (Consumption approx. 3 kg /  $m^2$ ).

#### Mixing

Each 25 kg bag is mixed with 3.1 I to 3.6 I of clean potable water. Put 2.5 I of water in a clean mixing vessel and add the powder in portions while continually mixing using a slow speed mechanical compulsory mixer (under 400 rpm). Add in portions as much of the remaining water as necessary to achieve the desired consistency and mix until the mortar has a homogeneous texture. Mixing time is 3 minutes after all powder has been added to the liquid.

Directly after priming the substrate with KÖSTER Polysil TG 500 the Restoration Plaster Key is applied (consumption: approx. 3 kg /  $m^2$ ) After hardening the KÖSTER Restoration Plaster White is applied. The plaster is usually applied in two coats with a total layer thickness of approx. 2.5 cm; the thickness should be at least 2 cm. After casting the plaster onto the substrate, it is trued using a feather edge, a straight edge, or a long float trowel. Once the plaster starts to set it is smoothed using a float. If several layers of plaster are to be applied, the lower layer is roughened thoroughly by scratching immediately after it begins to set.

Interior surfaces can be smoothed using KÖSTER Fine Plaster. KÖSTER Fine Plaster must be applied either within 48 hours after the

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application of the last coat of KÖSTER Restoration Plaster White or after the restoration plaster has cured for 28 days. Paint can be applied after 7 days.

#### Restoration against rising damp

Prior to the restoration of areas using the KÖSTER Restoration Plaster System, the waterproofing against rising damp (capillary wicking moisture in the wall) must be completed. For this refer to the following technical guidelines: KÖSTER Mautrol, KÖSTER Mautrol 2C, KÖSTER Mautrol Flex 2C, or KÖSTER Crisin 76. Immediately after closing the boreholes with KÖSTER KB-Fix 5, the salt treatment and substrate strengthening using KÖSTER Polysil TG 500 is carried out (minimum consumption is 120 g /  $\rm m^2$ , in the case of strongly absorbent substrates up to 250 g /  $\rm m^2$ ). Directly after that, the Restoration Plaster Key is applied (Consumption: approx. 3 kg /  $\rm m^2$ ) on top of which - after another 24 hours of waiting time - KÖSTER Restoration Plaster White is applied in one or two layers with a minimum thickness of 2.0 cm.

# Reduction of condensate formation (subsequent measure when using the KÖSTER KD-System and KÖSTER NB 1 Grey)

The waterproofing against pressurized and actively flowing water is carried out using the KÖSTER KD System. Approx. 24 hours after finishing the waterproofing, the Restoration Plaster Key is applied. After another 24 hours, KÖSTER Restoration Plaster White can be applied on top of the Restoration Plaster Key. After smoothing and curing, the surface of the restoration plaster can be covered with paints and wallpapers which are open to vapor diffusion without further pretreatment.

When waterproofing against non-pressurized water and pressurized water without active leakages using KÖSTER NB 1 Grey and KÖSTER Polysil TG 500, the restoration plaster is thrown directly onto the last not yet cured layer of slurry without prior application of a plaster key.

#### Aftertreatment

If aftertreatment is required or desired, for example due to very dry conditions, the plaster can be treated according to the general practice for mortars, such as covering with a thin PE sheet.

## Consumption

Approx. 12 kg / m²; per cm layer thickness

On uneven surfaces additional consumption may have to be considered for levelling the surface.

#### Cleaning

Clean tools immediately after use with water.

#### **Packaging**

M 662 025 25 kg bag

#### Storage

Store the material in a dry environment. In originally sealed packages, the material can be stored for a minimum of 12 months.

#### Safety

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

## Related products

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KÖSTER KB-FIX 5 KÖSTER Polysil TG 500 KÖSTER Restoration Plaster Key KÖSTER Mautrol Liquid Sealant KÖSTER Mautrol 2C KÖSTER Mautrol Flex 2C KÖSTER Crisin Cream KÖSTER Crisin 76 Concentrate KÖSTER Fine Plaster KÖSTER Facade Cream KÖSTER Silicone Paint White KÖSTER KD System KÖSTER NB 1 Grey KÖSTER NB 2 White KÖSTER NB 1 Fast KÖSTER Repair Mortar KÖSTER Waterstop KÖSTER SB Bonding Emulsion KÖSTER NB 1 Flex

Prod. code C 515 015 Prod. code M 111 Prod. code M 154 025 Prod. code M 241 Prod. code M 261 Prod. code M 262 020 Prod. code M 278 Prod. code M 279 Prod. code M 655 025 Prod. code P 200 Prod. code P 260 010 Prod. code W 219 Prod. code W 221 025 Prod. code W 222 025 Prod. code W 223 025 Prod. code W 530 025 Prod. code W 540 015 Prod. code W 710 Prod. code W 721 008