



KÖSTER Restoration Plaster Grey/Light

Technical Data Sheet M 666 020

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Grey, light, salt-resistant restoration plaster for the repair of moisture and salt burdened substrates for hand and machine application

Features

KÖSTER Restoration Plaster Grey/Light is a salt and pressure resistant restoration plaster for the restoration of heavily moisture and salt burdened substrates, especially after the installation of a horizontal barrier. Due to its high porosity and hydrophobicity, KÖSTER Restoration Plaster Grey allows for the damage free drying and desalting 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 Grey/Light 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	approx. 1.0 kg / l
Max. aggregate size	approx. 1.5 mm
Porosity of fresh mortar	> 30 Vol.-%
Porosity of cured plaster	> 40 Vol.-%
Compressive strength (28 days)	< 5 N / mm ²
Flexural tensile strength (28 days)	approx. 2 N / mm ²
Setting time	approx. 3 hours
Working time (23 °C, 65 % RH)	approx. 60 minutes
Water uptake	< 5 mm
Minimum application temperature	+ 5 °C
Water requirement per 25 kg bag	4.8 - 5.6 kg

Fields of Application

KÖSTER Restoration Plaster Grey/Light 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 Grey/Light 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. Loose particles and salt efflorescence should be removed mechanically prior to the beginning of the restoration. Prior to the application of KÖSTER Restoration Plaster Grey/Light, 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. Substrates previously treated with KÖSTER NB Waterproofing Slurries do not require subsequent application of KÖSTER Polysil TG 500. Substrates

containing gypsum are not suitable substrates and the gypsum must be removed. Breakouts, surface imperfections greater than 5 mm and raked out joints should be filled flush with KÖSTER Restoration Plaster Grey/Light or KÖSTER Repair Mortar. Leave the surface rough and allow to harden before the application.

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 / m²) 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 Grey/Light with the addition of max. 10% KÖSTER SB Bonding Emulsion added to the mixing water (Consumption approx. 2.5 - 3 kg / m², curing time 24 h).

Mixing

One 25 kg bag is mixed with 4.8 l to 5.6 l of clean potable water. Put approx. 4.2 l 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 plaster 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 / m²) After 24 hours of waiting time the KÖSTER Restoration Plaster Grey/Light is applied. The plaster is usually applied in two coats with a total layer thickness of approx. 2.5 cm. The layer thickness should be at least 2 cm. and maximum 3 cm. For layers thicker than 2.5 cm, it is recommended to apply in two layers. The second layer is applied within 24 hours or after 28 days. 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 application of the last coat of KÖSTER Restoration Plaster Grey or after the restoration plaster has cured for 28 days. Paint can be applied after 7 days.

Machine Application

When using automatic mortar / plaster mixing machines, the water must be adjusted that a workable consistency is achieved. The adjustments are dependent on the machine, static rotor mixer type, and the condition / age of the rotor. The following example is to show basic parameters, and must be tuned to jobsite conditions.

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.

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Waterproofing Systems

Machine	PFT G4
Stator/Rotor	Twister D4-2 LP
Attachments	Aftermixer Rotoquirl
Water adjustment	approx. 200
Hose	25 mm hose, 10 m

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 / m², in the case of strongly absorbent substrates up to 250 g / m²). Directly after that, the Restoration Plaster Key is applied (Consumption: approx. 3 kg / m²) on top of which - after another 24 hours of waiting time - KÖSTER Restoration Plaster Grey 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 Grey/Light 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 pre-treatment. When waterproofing against non-pressurized water and pressurized water without active leakages using KÖSTER NB 1 Grey the restoration plaster is thrown directly onto the last not yet cured layer of slurry without prior application of a plaster key.

Curing time

In general the following applies: Allow one day of drying time for each millimeter of plaster thickness.

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. 8 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 666 020 20 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.

Other

The restoration plaster surface obtained after floating and hardening can be reworked with systems open to vapor diffusion (paint and / or wallpaper) after 7 days at the earliest without any further pre-treatment. Shrinkage / hairline cracks are not a defect as they are harmless and do not affect the system properties.

Related products

KÖSTER KB-Fix 5	Prod. code C 515 015
KÖSTER Polysil TG 500	Prod. code M 111
KÖSTER Restoration Plaster Key	Prod. code M 154 025
KÖSTER Mautrol Liquid Sealant	Prod. code M 241
KÖSTER Mautrol 2C	Prod. code M 261
KÖSTER Mautrol Flex 2C	Prod. code M 262 020
KÖSTER Crisin Cream	Prod. code M 278
KÖSTER Crisin 76	Prod. code M 279
KÖSTER Fine Plaster	Prod. code M 655 025
KÖSTER Façade Cream	Prod. code P 200
KÖSTER Silicone Paint White	Prod. code P 260 010
KÖSTER KD System	Prod. code W 219
KÖSTER NB 1 Grey	Prod. code W 221 025
KÖSTER NB 2 White	Prod. code W 222 025
KÖSTER Repair Mortar	Prod. code W 530 025
KÖSTER Waterstop	Prod. code W 540 015
KÖSTER SB Bonding Emulsion	Prod. code W 710

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