

Cartridge System with KÖSTER Mautrol® Liquid Sealant

System description

Updated: April 1, 2010

- Official certificate of inspection, AMPA, Hanover – damp proofing
- Industry classification "MAUTROL" registered at the German patent office, K 50 862
- Capillary rods registered at the German patent office nr. 43 06 687

Self dosing waterproofing against rising damp

Features

KÖSTER Mautrol® Liquid Sealant is a very thin, deeply penetrating silicifying liquid with hydrophobing effect. It effectively seals off rising damp. The material is injected via boreholes into the masonry. It spreads into the capillaries of the construction material and it reacts to form insoluble and water repellent compounds.

Besides the hydrophobing effect, KÖSTER Mautrol® Liquid Sealant considerably strengthens the damaged construction members. KÖSTER Mautrol® Liquid Sealant does not attack steel reinforcements.

KÖSTER Mautrol® Liquid Sealant Cartridges are delivered ready-for-use and enable easy adjustment of the consumption.

Technical Data

Viscosity	approx. 80 mPa.s
Type of effect	narrowing of pores / hydrophobing of pore walls
ph-value	approx. 11

Field of application

KÖSTER Mautrol® Liquid Sealant is used to seal off rising damp in masonry up to a damage level of approx. 1 % (by mass) salt content and 50 % moisture content (equals approx. 5 – 8 % water content by mass).

KÖSTER Mautrol® Liquid Sealant Cartridges are suitable for application in all types of masonry except for those that contain loam mortars.

Application

Depending on the thickness of the wall, holes are drilled into the masonry at a distance of max. 12.5 cm from each other (see the table overleaf) with a diameter of 14 mm and at an angle of approx. 30 °C (to a depth of approx. 5 cm less than the thickness of the wall). The holes are flushed out with clean water or blown clear with pressurised air.

If a subsequent horizontal barrier is to be installed in a lime-free substrate - such as e. g. tuff or non-alkali, old masonry - then the boreholes are filled with lime water after cleaning.

Application case 1

Masonry free of voids and cracks:

After drilling the holes, the cartridges are put in place and are left in the masonry until they are completely empty.

Application case 2

Masonry free of voids, but cracked or very porous masonry:

In the cleaned boreholes, KÖSTER Capillary Rods are inserted so that approximately the first 4 cm of the borehole are left clear. Then the KÖSTER Capillary Rods are saturated with clean water. After that, the cartridges are put in place and are left in the masonry until they are completely empty. The capillary rods can remain in the masonry after application of the material.

Application case 3

Masonry with voids:

The boreholes are filled with KÖSTER Mautrol® Borehole Suspension and are drilled open after a setting time of approximately 30 minutes up to a maximum of 3 hours. Then the cartridges are put in place and are left there until they are completely empty.

After the waterproofing is done, the boreholes are closed with KÖSTER KB-Fix 5.

Packaging

KÖSTER Mautrol® Liquid Sealant:

0.55 kg cartridge = 28 units / carton

KÖSTER Capillary Rods:

Length: 48 cm and 96 cm; 50 pieces per package

Storage

Store the material cool but frost-free; in originally sealed packages, it can be stored for approx. 2 years.

Cleaning of tools

Clean tools immediately after use with water.

Consumption (max.)

Approx. 0.1 kg / m per cm of wall thickness

Safety

KÖSTER Mautrol® Liquid Sealant is alkaline and thus acts corrosively. When processing the material, wear gloves. In case of splashes on the skin or in the eyes, flush off the material with a lot of water. Protect surroundings from splashes.

Please note

Due to the chemical composition of KÖSTER Mautrol® Liquid Sealant, visible discolorations (efflorescence) can take place which possibly can not be removed.

Technical guidelines cited

KÖSTER Mautrol® Liquid Sealant Art.-No. 3.041

KÖSTER Mautrol® Borehole Suspension Art.-No. 3.05

KÖSTER KB-Fix 5 Art.-No. 5.015

KÖSTER Capillary Rods Art.-No. 11.06

Suction Angle System with

KÖSTER Mautrol Liquid Sealant System Description

Wall thickness including interior/exterior plaster	Ø the drill holes	Drill holes per metre	Distance between drill holes from centre of the hole to centre of the hole (horizontal)	Cartridges per metre	Cartridges per drill hole	Consumption of capillary rods (48 cm)
	[mm]	[unit]	[cm]	[unit]	[unit]	[unit per m]
to 10 cm	14	8	12.5	8	1	1
to 20 cm	14	8	12.5	8	1	2
to 30 cm	14	8	12.5	8	1	4
to 40 cm	14	9	11.0	9	1	7
to 50 cm	14	11	9.0	11	1	11
to 60 cm	14	13	8.0	13	1	16
to 70 cm	14	15	7.0	15	1	22
to 80 cm	14	17	6.0	17	1	29
to 90 cm	14	19	5.5	19	1	37
to 100 cm	14	21	5.0	21	1	46

PLEASE NOTE: For wall thicknesses of more than 24 cm, the use of the KÖSTER Suction Angle System is recommended.

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.