

MAPESTOP CREAM

Monomeric silane-based creamy emulsion for creating chemical barriers against capillary rising damp



WHERE TO USE

Forming horizontal chemical barriers to restore old, compact stone, brick, tuff, concrete and mixed masonry, including masonry of historical and architectural interest, or recently built masonry in case of capillary rising damp (product is effective at up to 95% saturation levels) and soluble salts.

Some application examples

This system is used to block and/or considerably reduce rising damp travelling from elements below ground level through the capillary pores present in all construction materials, particularly when carrying out renovation work on:

- existing stone, solid brick, tuff, concrete and mixed masonry in lagoon areas or near to water courses or the sea;
- concrete structures;
- masonry with internal voids after consolidating them by injecting slurry from the **Mape-Antique** or **MapeWall** ranges;
- masonry where previous barriers are no longer effective, such as bitumen sheets or membranes;
- masonry made from cellular concrete blocks;
- recently constructed masonry;
- existing masonry, including masonry of historical or architectural interest in listed buildings.

TECHNICAL CHARACTERISTICS

Mapestop Cream is a solvent-free, ready-to-use hydrophobising gel made from monomeric silane. It is easy to apply, highly effective and long-lasting. The product is injected into a series of holes drilled in the masonry using simple extrusion equipment. After injecting **Mapestop Cream**, it spreads inside the masonry and forms a water-repellent barrier that blocks the rising damp. The active components contained in **Mapestop Cream** penetrate into the substrate and react with the silica in the masonry to form a hydrophobising barrier that expands and blocks the rising damp without affecting the breathability of the masonry.

RECOMMENDATIONS

- Once the sausage or the cartridge of **Mapestop Cream** have been opened, it must be used within 24 hours.

- Do not use **Mapestop Cream** on chaotic and/or weak masonry. Firstly, fill all the voids inside the masonry by injecting hi-flow slurries from the **Mape-Antique** or **MapeWall** ranges.
- Do not use **Mapestop Cream** as a protective, water-repellent treatment on “exposed” masonry or render against water splashing or beating down on the surface (use **Antipluviol W** or **Antipluviol S**).
- If the masonry is to be rendered, wait around one week after applying the chemical barrier so that any moisture present in the area above the barrier has time to evaporate.
- If there is a high flow-rate of capillary rising damp or a high concentration of soluble salts in the structure to be restored, it is recommended to apply dehumidifying render from the **Mape-Antique**, **Mape-Antique NHL ECO** or **PoroMap** ranges to help eliminate even the smallest amount of moisture that is not intercepted by the chemical barrier.
- Do not use **Mapestop Cream** if the temperature is lower than +5°C.

APPLICATION PROCEDURE

Preparation of the substrate

Before injecting the chemical barrier, the type of masonry must be identified to decide what type of intervention needs to be carried out.

For chaotic and/or weak masonry with many voids, fill all the internal cavities by injecting hi-flow slurry from the **Mape-Antique** or **MapeWall** ranges. It is preferable to use **Mape-Antique F21** on masonry with small voids or frescoes, or **Mape-Antique I** or **Mape-Antique I-15** for masonry with larger cavities. Grout and seal any cracks and gaps in the face of the wall from where the slurry could seep out with mortars from **Mape-Antique** range.

Drilling the holes

Drill a series of holes in the masonry with a drill, as shown in Fig. 1 and Fig. 2, depending on the type of masonry. The holes must be around 12 mm in diameter and drilled in a single row at a maximum pitch of 12 cm and at least 12 cm above the ground. The depth of the holes must be around 5 cm less than the total thickness of the wall.

For masonry made from bricks, blocks or evenly shaped pieces of stone, drill the horizontal holes in the grouts between the blocks (Fig. 1). For substrates made from irregular pieces of stone, drill the holes along the grout lines as straight as possible (Fig. 2). In presence of particularly porous construction elements, the holes may be drilled directly into them.

Then clean out the holes with compressed air to remove all traces of dust and loose material.

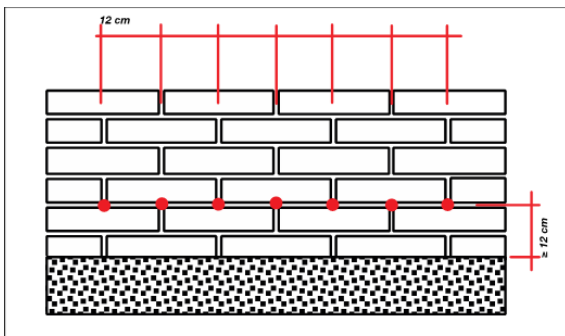


Fig. 1

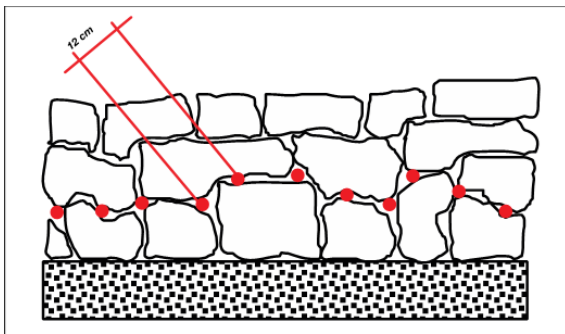


Fig. 2

Injecting the product

Solid masonries

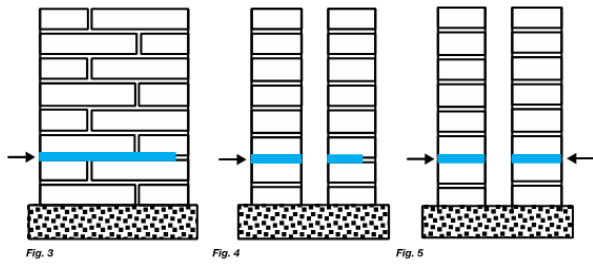
Extrude the cream and fill the holes (Fig. 3) making sure to leave a gap in order to seal the hole with mortar (thickness ≥ 2 cm). For this operation, use the injection tube **Mapestop Cream Tool 280** (when using the product in cartridge form) or **Mapestop Cream Tool 600** (when using sausage).

600 ml sausages of **Mapestop Cream** also contain a free injection tube (in cartridges format the tool is not included). When applying the product using a cartridge, use a 280 ml cartridge gun; for tubes of product, use a 600 ml manual gun, such as a **Mapei Gun 600 Pro**. For injection of **Mapestop Cream** in drum format, use a low pressure pump.

“Rubble masonry” or masonry with gaps

Extrude the cream from one side only of the masonry or, if you prefer, treat each side as a separate wall. In the first case (Fig. 4), when drilling the holes, let the drill go through the gap and start drilling into the other wall.

Mapestop Cream has a thixotropic consistency so that, during the extrusion, it fills the hole in each single wall without wasting the product. In the second case, work from both sides treating each part as if it were a single solid wall (Fig. 5).



Restoring render

After completing the injection process with **Mapestop Cream**, “seal” each hole with one of the mortars from the **Mape-Antique** range.

24-48 hours after forming the chemical barrier, remove all the original render, if present, and then wait around one week to allow any moisture in the area above the treated zone to evaporate. The amount of time required depends on the amount of moisture in the masonry, the thickness of the masonry, the type of material used to build the masonry and the amount of ventilation or sunlight to which the structure is exposed.

If there is a high flow-rate of capillary rising damp or a high concentration of soluble salts in the structure to be restored, it is recommended to apply dehumidifying render from the **Mape-Antique**, **Mape-Antique NHL ECO** or **PoroMap** ranges to help eliminate even the smallest amount of moisture that is not intercepted by the chemical barrier.



Drill a series of holes in the walls



Insert a sausage in the extrusion gun and then cut the edge of the sausage on the side where the collar is going to be secured



Screw the collar to the gun to hold the injection tool in place



Extrude the cream in the sausage from the gun and fill all the holes



Create a chemical barrier in a concrete wall



Extrude the cream from the cartridge filling each hole

CLEANING

Tools used to prepare and inject **Mapestop Cream** may be cleaned with paper or a rag.

PACKAGING

Boxes of 12 x 280 ml cartridges.

Boxes of 10 x 600 ml sausages include 1 **Mapestop Cream Tool 600** injection tube for use with the manual 600 ml tubular extrusion gun **Mapei Gun 600 Pro**.

20 kg drum (≈ 20 l) to be injected with low pressure pump.

CONSUMPTION

Consumption depends on the thickness of the masonry and on the type of substrate; for poorly compacted masonry with large gaps, consumption could be higher than that declared.

The table below is a general guide on how many sausages and cartridges of product are required to treat one metre of masonry according to the thickness of the masonry.

Thickness of masonry (cm)	Number of 280 ml CARTRIDGES per linear metre of masonry	Number of 600 ml SOFT CARTRIDGES per linear metre of masonry	Kg* of Mapestop Cream per linear metre of masonry (for 20 kg bucket)
14	0.5 pc	0.2 pc	0.14 kg ≈ 0.14 l
27	1 pc	0.5 pc	0.27 kg ≈ 0.27 l
40	1.5 pc	0.7 pc	0.40 kg ≈ 0.40 l
50	1.8 pc	0.8 pc	0.50 kg ≈ 0.50 l
60	2.1 pc	1 pc	0.60 kg ≈ 0.60 l

*1 kg ≈ 1 l

Average consumption: approx. 10 ml/m per cm of thickness of masonry.

The values above are for indication purposes only and may vary according to the type of material the masonry is made from, its thickness and the number of gaps inside the masonry.

STORAGE

12 months for the product in 600 ml soft cartridges, 18 months for product in cartridges or drums.

All formats of **Mapestop Cream** must be stored in a dry, covered area, protected from direct sunlight, at a temperature between +5°C and +30°C, in its original, unopened packaging.

SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

Instructions for the safe use of our products can be found on the latest version of the Safety Data Sheet, available from our website www.mapei.com.
PRODUCT FOR PROFESSIONAL USE.

TECHNICAL DATA (typical values)

PRODUCT IDENTITY

Consistency:	creamy paste
Colour:	white
Density:	0.98 kg/l
pH:	7-8

APPLICATION DATA OF PRODUCT

Mixing:	supplied ready to use
Application temperature:	from +5°C to +40°C

WARNING

Although the technical details and recommendations contained in this product data sheet correspond to the best of our knowledge and experience, all the above information must, in every case, be taken as merely indicative and subject to confirmation after long-term practical application; for this reason, anyone who intends to use the product must ensure beforehand that it is suitable for the envisaged application. In every case, the user alone is fully responsible for any consequences deriving from the use of the product.

Please refer to the current version of the Technical Data Sheet, available from our website www.mapei.com

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