



# Mape-Antique I-15

**Salt-resistant, fillerized hydraulic binder, based on lime and Eco-Pozzolan, for making highly-fluid injection slurry for consolidating masonry**



## WHERE TO USE

Consolidating foundations, pillars, vaulted roofs and archways.

Consolidating “rubble masonry”.

Consolidating stone, brick, tuff and mixed masonry on old buildings, including those of historical or artistic interest, with cracks or small to large internal gaps and cavities.

Consolidating masonry with capillary rising damp and containing soluble salts.

## Some application examples

Highly-fluid, volumetrically-stable injectable slurry with high resistance to soluble salts for consolidating:

- foundations, pillars, vaulted roofs and archways;
- “rubble masonry”;
- stone, brick, tuff and mixed masonry in general on old buildings with cracks, gaps and internal cavities, including buildings of historical or artistic interest and listed buildings;
- masonry with capillary rising damp and soluble salts.

## TECHNICAL CHARACTERISTICS

**Mape-Antique I-15** is a cement-free, fillerized hydraulic binder in powder form, based on lime and Eco-Pozzolan, natural ultra-fine sand and special

admixtures for making highly-fluid injection slurry, according to a formula developed in the MAPEI research laboratories.

When mixed with water in a suitable clean container, **Mape-Antique I-15** forms a fluid, volumetrically-stable, salt-resistant injection slurry which is easy to inject with a manual or electronic pump or by gravity casting into structures with cracks, gaps and internal cavities.

The properties of the hardened slurry made using **Mape-Antique I-15**, such as mechanical strength, modulus of elasticity and porosity, are very similar to those of mortars made using lime, lime-pozzolan or hydraulic lime originally used in the construction of old buildings. Compared with these types of mortar, however, **Mape-Antique I-15** also has properties which make it resistant to various aggressive chemical-physical phenomena, such as soluble salts, freeze-thaw cycles and alkali-aggregate reactions.

Typical values are shown in the Technical Data table (see Application Data and Final Performance sections) which refer to the main characteristics of **Mape-Antique I-15** at both the fresh and hardened states.

## RECOMMENDATIONS

Do not use **Mape-Antique I-15** for casting into formwork (use **Mape-Antique Hi-Flow** or **Mape-Antique LC** mixed with aggregates with a suitable grain size).

# Mape-Antique I-15



Making the holes



Fastening the rubber tubes in place with Mape-Antique Allettamento



Preparation of Mape-Antique I-15

- Do not use **Mape-Antique I-15** on structures with frescoed renders (use **Mape-Antique F21**).
- Do not use **Mape-Antique I-15** for rendering.
- Do not use **Mape-Antique I-15** for skimming render (use **Mape-Antique FC Ultrafine**, **Mape-Antique FC Civile** or **Mape-Antique FC Grosso**).
- Never add admixtures, fillers, sand, cement or other binders (lime and gypsum), to **Mape-Antique I-15**.
- Do not apply **Mape-Antique I-15** if the temperature is lower than +5°C.

## APPLICATION PROCEDURE

### Preparation of the substrate

Grout and "seal" all cracks and gaps on the masonry facing wall from where the slurry could seep out. Drill 20-40 mm diameter holes to a depth of 2/3 of the thickness of the wall, preferably at a square pitch of 50x50 cm. If the wall is thicker than 60 cm, we recommend drilling holes on both sides. Fasten small tubes or injectors in place to inject the slurry. The day before injecting the slurry, we recommend saturating all the inside of the structure with water through the tubes or injectors previously fastened in place. Saturate the wall starting with the holes in the highest position. Make sure the structure has absorbed all the water before injecting the slurry.

### Preparation of the slurry

Prepare **Mape-Antique I-15** in a suitable clean container using an electric drill at low speed with a mixing attachment. Mixing by hand is not recommended. After pouring in approximately 6 litres of clean water for each 20 kg bag of **Mape-Antique I-15**, slowly add the powdered binder in a continuous flow. Mix for approximately 5 minutes and check that the blend is well mixed, even and free of lumps and that no binder has stuck to the sides or bottom of the container. Inject the slurry within 60 minutes of preparation.

### Injecting the slurry

Inject **Mape-Antique I-15** through the small tubes or injectors previously fastened in place with an electric or electronic pump at a pressure of up to 1 atm at the nozzle. Inject the product starting from the bottom working upwards to help expel the air contained within the structure and fill all the cavities. When the slurry seeps out of a tube or injector near the one being injected, stop injecting, close the injector

used and continue the operation from the tube or injector from which the slurry seeped out. Follow this pattern until the slurry seeps out of the highest hole.

When the consolidation procedure has been completed, remove all tubes and injectors and grout the holes with a suitable mortar from the **Mape-Antique** range.

## Cleaning

Slurry may be removed from tools with water before it hardens. Once hardened, cleaning is more difficult and must be carried out mechanically.

## PACKAGING

20 kg bags.

## CONSUMPTION

approx. 1.50 kg/dm<sup>3</sup> (of cavities to be filled).

## STORAGE

12 months in a dry, covered area in its original, unopened packaging.

## SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

**Mape-Antique I-15** is not considered hazardous according to current norms and guidelines regarding the classification of mixtures. However, we recommend using protective gloves and goggles, and to take the usual precautions for handling chemical products.

For further and complete information about the safe use of our product please refer to the latest version of our Material Safety Data Sheet.

PRODUCT FOR PROFESSIONAL USE.

## 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](http://www.mapei.com)**

**All relevant references for the product are available upon request and from [www.mapei.com](http://www.mapei.com)**



## TECHNICAL DATA (typical values)

### PRODUCT IDENTITY

**Appearance:** powder

**Colour:** white

**Maximum size of aggregate (EN 1015-1) ( $\mu\text{m}$ ):** 100

**Bulk density ( $\text{kg}/\text{m}^3$ ):** 1,100

### APPLICATION DATA (at +20°C and 50% R.H.)

**Mixing ratio:** 100 parts of **Mape-Antique I-15** with 30 parts of water (6 litres of water per 20 kg bag of product)

**Appearance of mix:** super-fluid

**Bleeding (NorMaL M33-87):** absent

**Fluidity of mix (EN 445) (s):**  
< 30 (initial)  
< 30 (after 60 min.)

**Bulk density of fresh mortar (EN 1015-6) ( $\text{kg}/\text{m}^3$ ):** 1,950

**Application temperature range:** from +5°C to +35°C

**Workability time of fresh mortar (EN 1015-9):** approx. 60 min.

### FINAL PERFORMANCE (30% mixing water)

Performance characteristic	Test method	Performance of product
<b>Compressive strength after 28 days (<math>\text{N}/\text{mm}^2</math>):</b>	EN 196-1	15
<b>Reaction to fire:</b>	EN 13501-1	Class A1
<b>Resistance to sulphates:</b>	Anstett test	high
<b>Saline efflorescence (after semi-immersion in water):</b>	/	absent



Filling the hopper with Mape-Antique I-15



Injection of Mape-Antique I-15



**Mape-Antique  
I-15**



**BUILDING THE FUTURE**

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