

Mape-Antique I

Super-fluid, salt-resistant, fillerized hydraulic binder, based on lime and Eco-Pozzolan, for making injection slurries for consolidating masonry



WHERE TO USE

Consolidating foundations, pillars, vaulted roofs and archways.

Consolidating “cement-core” walls.

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

Consolidating masonry with the presence of capillary rising damp and soluble salts.

Some application examples

Super-fluid, volumetrically-stable injection slurry with high resistance to soluble salts for consolidating:

- foundations, pillars, vaulted roofs and archways;
- “cement-core” walls;
- stone, brick, tuff and mixed masonry in general on old buildings, including those of historical or artistic interest with a conservation order or under the protection of the National Trust, which contain cracks, gaps and internal cavities;
- masonry with the presence of capillary rising damp and soluble salts.

TECHNICAL CHARACTERISTICS

Mape-Antique I is a cement-free, fluid hydraulic binder in powder form for injection slurry made from lime, Eco-Pozzolan, natural ultra-fine sand

and special additives according to a formulation developed in MAPEI’s research laboratories.

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

Once hardened, the properties of slurry made using **Mape-Antique I**, such as mechanical strength, modulus of elasticity and porosity, are very similar to slurry made using lime, lime-pozzolan or hydraulic lime originally used in the construction of old buildings. Compared with these types of slurry, **Mape-Antique I** also has properties which make the product resistant to various chemical-physical aggressive phenomena, such as the presence of 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** at both fresh and hardened states.

RECOMMENDATIONS

- Do not use **Mape-Antique I** for casting into formwork (use **Mape-Antique LC** mixed with aggregates with a suitable grain size).
- Do not use **Mape-Antique I** on structures with murals (use **Mape-Antique F21**).

Mape-Antique I



Preparation of Mape-Antique I



Filling of the injection pump with Mape-Antique I



Consolidating injection with Mape-Antique I

- Do not use **Mape-Antique I** for rendering.
- Do not use **Mape-Antique I** for skimming render (use **Mape-Antique FC Ultrafine**, **Mape-Antique FC Civile** or **Mape-Antique FC Grosso**).
- Never add additives, fillers, sand, cement or other binders (lime and gypsum) to **Mape-Antique I**.
- Do not apply **Mape-Antique I** 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, it is better to make holes from 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** in a suitable clean container using a low-speed electric drill with a mixing attachment. Mixing by hand is not recommended. After pouring in approximately 7 litres of clean water for each 20 kg bag of **Mape-Antique I**, 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 material has stuck to the sides and base of the container. Inject the slurry within 60 minutes of preparation.

Injecting the slurry

Inject **Mape-Antique I** through the small tubes or injectors previously fastened in place with an electric or electronic pump at a pressure of up to 1 bar at the nozzle. Inject the product starting from the bottom working upwards to help expel air in 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 much more difficult and must be carried out mechanically.

PACKAGING

20 kg bags.

CONSUMPTION

Approx. 1.40 kg/dm³ (of cavities to be filled).

STORAGE

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

SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

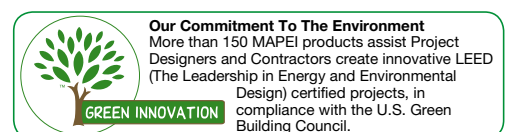
Mape-Antique I contains special hydraulic binders which, in contact with perspiration or other bodily fluids, may produce an irritating alkaline reaction to the eyes or skin. Use protective gloves and goggles. For further and complete information about the safe use of our product please refer to our latest version of the 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 web site www.mapei.com



All relevant references for the product are available upon request and from www.mapei.com

TECHNICAL DATA (typical values)

PRODUCT IDENTITY

Appearance:	powder
Colour:	white
Maximum size of aggregate (EN 1015-1) (μm):	100
Bulk density (kg/m^3):	1100
Hazard classification according to EC 1999/45:	irritant. Before using refer to the "Safety instructions for preparation and application" paragraph and the information on the packaging and Safety Data Sheet

APPLICATION DATA OF PRODUCT (at +20°C – 50% R.H.)

Mixing ratio:	100 parts of Mape-Antique I with 35 parts of water (7 litres of water per 20 kg bag of product)
Consistency of mixture:	superfluid
Bleeding (NorMaL M33-87):	absent
Fluidity of mix (EN 445) (s):	< 30 (initial) < 30 (after 60 minutes)
Bulk density of fresh mortar (EN 1015-6) (kg/m^3):	1900
Application temperature range:	from 5°C to 35°C
Workability time of fresh mortar (EN 1015-9):	approx. 60 minutes

FINAL PERFORMANCE (35% mixing water)

Performance characteristic	Test method	Performance of product
Compressive strength after 28 days (N/mm^2):	EN 196-1	18
Reaction to fire:	EN 13501-1	Class A1
Resistance to sulphates:	Anstett test	high
Saline efflorescence (after semi-immersion in water):	/	absent



Mape-Antique I



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