



Mape-Antique FC Civile



**Salt-resistant,
fine-grained lime
and Eco-Pozzolan
transpirant skimming
mortar for a natural
finish on render**



WHERE TO USE

Natural finish, macro-porous, de-humidifying skimming mortar for repairing old masonry deteriorated by the presence of capillary rising damp and soluble salts, including on buildings of historical and artistic interest. Natural finish on transpirant or "structural" base render.

Natural finish skimming mortar for lime-based render deteriorated by the action of atmospheric agents and environmental conditions or by ageing.

Some application examples

- Natural finish on internal/external large-grained, de-humidifying, macro-porous render when repairing masonry deteriorated by the presence of capillary rising damp and soluble salts.
- Natural finish on large-grained dehumidifying render on masonry in lagoon areas or close to the sea.
- Natural finish on new de-humidifying render or old lime-based render on stone, brick, tuff and mixed masonry, including on buildings of historical and artistic interest with a conservation order or under the protection of the National Trust.
- Natural finish on large-grained transpirant or "structural" base render.

TECHNICAL CHARACTERISTICS

Mape-Antique FC Civile is a pre-blended, fine-grained, cement-free skimming mortar in powder form made from lime, Eco-Pozzolan, natural sand and special additives with low emission level of volatile organic compounds (EMICODE EC1 R Plus), according to a formulation developed in Mapei's research laboratories.

This product is classified as GP according to EN 998-1 Standards: "General purpose mortar for internal/external render", category CS IV.

When mixed with water in a suitable clean container, **Mape-Antique FC Civile** forms a salt-resistant, natural-finish, transpirant skimming mortar with a plastic consistency which is easy to apply with a flat metal spatula on both vertical surfaces and on ceilings. The properties of a mortar made from **Mape-Antique FC Civile**, such as mechanical strength, modulus of elasticity and vapour permeability, are very similar to the ones of a skimming mortar 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 FC Civile** also has properties which make the product resistant to various chemical-physical aggressive phenomena, such as the presence of soluble salts, freeze-thaw cycles, the leaching action of rainwater, alkali-aggregate reactions and the formation of cracks caused by plastic shrinkage. 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 FC Civile** at both the fresh and hardened states.

RECOMMENDATIONS

- **Mape-Antique FC Civile** is not recommended for structures with high flows of capillary rising damp which leads to high concentrations of soluble salts (we recommend using products from **Mape-Antique FC Grosso** or from the **Silexcolor** or **Silancolor** ranges).

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Application of
Mape-Antique FC Civile



Application of
Mape-Antique FC Civile



Finishing with a damp
sponge float of
Mape-Antique FC Civile

- Wait until the render is completely cured before applying **Mape-Antique FC Civile**.
- **Mape-Antique FC Civile** must be applied in layers of max 2 mm for each coat.
- Do not use **Mape-Antique FC Civile** for casting into formwork (use **Mape-Antique LC** mixed with aggregates with a suitable grain size).
- Do not use **Mape-Antique FC Civile** to make a consolidating slurry for injection into structures (use **Mape-Antique I** or **Mape-Antique F21**).
- Do not use **Mape-Antique FC Civile** for rendering.
- Never add additives, cement or other binders (lime and gypsum) to **Mape-Antique FC Civile**.
- Do not apply thin coats of paint or coloured coating which could have a high impact on the transpiration properties of **Mape-Antique FC Civile** and, therefore, obstruct the evaporation of damp in the masonry. Use products from the **Silexcolor** or **Silancolor** ranges, lime-based paint and water-repelling products such as **Antipluviol S** or **Antipluviol W**.
- Do not apply **Mape-Antique FC Civile** if the temperature is lower than +5°C.

APPLICATION PROCEDURE

Preparation of the substrate

Surfaces to be skimmed must be clean, sound and free of dust and crumbling elements. We also recommend that the surface of the new render is planed with a metal-tipped cutter to remove any surface laitance and make it easier for the skimming compound to bond and prevent the formation of air bubbles. Before skimming the render, always wet the substrate.

Preparation of the product

Prepare **Mape-Antique FC Civile** in a suitable clean container using a low-speed electric drill with a mixing attachment. Mixing the product by hand is not recommended. After pouring the minimum amount of clean water required into the mixer (6 litres per 25 kg bag of **Mape-Antique FC Civile**), slowly add the powdered mortar in a continuous flow. Mix for approximately 3 minutes and check that the blend is well mixed, even and free of lumps and that no material has stuck to the sides and bottom of the container. Add a further amount of water if required up to a total of 6.5 litres per bag, including the water added at the start of mixing.

Then mix **Mape-Antique FC Civile** again for further 2-3 minutes according to the efficiency of the mixer to obtain an even, "plastic" and thixotropic blend.

Application of the product

Spread on a first, even layer of **Mape-Antique FC Civile** up to 2 mm thick for each coat with a flat, metal trowel. Press down slightly with the trowel to help the mortar bond and to help to expel any air entrapped in the porosity of the render. Apply further layers of the product as soon as the previous skimming

layer starts to set. If **Mape-Antique FC Civile** is used to skim over an existing lime or lime/cement-based render, we recommend applying two layers with 4 x 4.5 mm **Mapenet 150** alkali-resistant glass fibre mesh placed between the first and second layer, in compliance with ETAG 004 guidelines. The surface of **Mape-Antique FC Civile** may be finished with a slightly damp sponge float using a rotary movement before the product has started to set. During hot and/or particularly windy weather, take special care when curing the mortar.

Even though **Mape-Antique FC Civile** may be applied on any type of lime-based render, including macro-porous de-humidifying render, the fine grain structure of the product tends to reduce the steam permeability of the render. In such cases, it is better to use **Mape-Antique FC Grosso** or the silicate-based **Silexcolor Tonachino** or the siloxane-based **Silancolor Tonachino**, coloured coating products applied in thin coats after applying their corresponding primers (**Silexcolor Primer** or **Silancolor Primer**).

FINISHING COAT

Mape-Antique FC Civile must only be applied over render once it is completely cured.

The surface of **Mape-Antique FC Civile** may only be painted or coated with other finishing products once the skimming compound has completely cured. Paint the surface with **Silexcolor Paint** or **Silancolor Paint** after applying their corresponding primers.

For constructions particularly exposed to rain, if the render does not require any coating, it may be protected with a transparent water-repellent product such as **Antipluviol S**, siloxane resin impregnator in solvent or **Antipluviol W**, siloxane resin impregnator in water dispersion.

Cleaning

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

PACKAGING

25 kg bags.

COLOUR

White or light pink.

CONSUMPTION

Ca. 1.4 kg/m² (per mm of thickness).

STORAGE

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

SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

Mape-Antique FC Civile contains special hydraulic binders, which in contact with sweat or other body fluids may cause corrosion and damage to the eyes. During

TECHNICAL DATA (typical values)

PRODUCT IDENTITY

Type of mortar (EN 998-1):	GP: "General purpose mortar for internal/external render"
Appearance:	powder
Colour:	white or light pink
Maximum size of aggregate (EN 1015-1) (µm):	400
Bulk density (kg/m³):	1,200
EMICODE:	EC1 R Plus - very low emission level

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

Mixing ratio:	100 parts of Mape-Antique FC Civile with 24-26 parts of water (6-6.5 litres of water per 25 kg bag of product)
Appearance of blend:	plastic
Bulk density of fresh mortar (EN 1015-6) (kg/m³):	1,800
Application temperature range:	from +5°C to +35°C
Workability time of fresh mortar (EN 1015-9):	approx. 60 minutes
Applicable thickness (mm):	2

FINAL PERFORMANCE (25% mixing water)

Performance characteristic	Test method	Requirements according to EN 998-1	Performance of product
Compressive strength after 28 days (N/mm²):	EN 1015-11	CS I (from 0.4 to 2.5)	10 (Category CS IV)
		CS II (from 1.5 to 5.0)	
		CS III (from 3.5 to 7.5)	
		CS IV (≥ 6)	
Bond strength to substrate (N/mm²):	EN 1015-12	declared value and Failure mode (FP)	≥ 0.6 Failure mode (FP) = B
Capillary action water absorption [kg/(m²·min^{0.5}):	EN 1015-18	from Category W 0 to Category W 2	Category W 2
Coefficient of permeability to water vapour (µ):	EN 1015-19	declared value	≤ 15
Thermal conductivity (λ_{10,dry}) (W/m·K):	EN 1745	tabulated value	0.67
Reaction to fire:	EN 13501-1	value declared by manufacturer	Class E
Resistance to sulphates (%):	Anstett test	not required	high
Saline efflorescence: (semi-immersion in water):	/	not required	absent



Finishing the surface of Mape-Antique FC Civile with a sponge

Mape-Antique FC Civile



use, wear protective gloves and goggles and take the usual precautions for handling chemicals. If the product comes in contact with the eyes or skin, wash immediately with plenty of clean water and seek medical attention.

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



This symbol is used to identify Mapei products which give off a low level of volatile organic compounds (VOC) as certified by GEV (Gesellschaft Emissionskontrollierte Verlegewerkstoffe, Klebstoffe und Bauprodukte e.V.), an international organisation for controlling the level of emissions from products used for floors.



Our Commitment To The Environment
MAPEI products assist Project Designers and Contractors create innovative LEED (The Leadership in Energy and Environmental Design) certified projects, in compliance with the U.S. Green Building Council.

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



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