

# MAPE-ANTIQUE FC ULTRAFINE

Salt-resistant, ultra fine-grained lime and ECO-POZZOLAN cement-free, breathable skimming mortar for a smooth finish on render



## CO<sub>2</sub> FULLY OFFSET PRODUCTS

**Mape-Antique FC Ultrafine** is part of the CO<sub>2</sub> Fully Offset in the Entire Life Cycle line of products. CO<sub>2</sub> emissions measured throughout the life cycle of products from the Zero line in 2024 using Life Cycle Assessment (LCA) methodology, verified and certified with EPDs, have been offset through the acquisition of certified carbon credits in support of forestry protection projects. A commitment to the planet, to people and to biodiversity. For more details on how emissions are calculated and on climate mitigation projects financed through certified carbon credits, visit the webpage [zero.mapei.com](https://zero.mapei.com).

## WHERE TO USE

Ultra fine-grained skimming mortar for macro-porous, de-humidifying render for repairing masonry deteriorated by the presence of capillary rising damp and soluble salts, including on existent buildings of historical and artistic interest.

Ultra-fine skimming mortar for transpirant or “structural” base render.

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

### Some application examples

- Smooth finishing internal/external large-grained, de-humidifying, macro-porous render when repairing masonry deteriorated by the presence of capillary rising damp and soluble salts.
- Smooth finishing large-grained dehumidifying render on masonry in lagoon areas or close to the sea.
- Smooth finishing new de-humidifying render or old lime-based render on stone, brick, tuff and mixed masonry, including on buildings of historical and artistic interest or listed buildings.
- Smooth finishing large-grained transpirant or “structural” base render.

## TECHNICAL CHARACTERISTICS

**Mape-Antique FC Ultrafine** is a pre-blended, ultra fine-grained, cement-free skimming mortar in powder form made from lime, Eco-Pozzolan, natural sand and special additives with very low emission of volatile organic compounds (EMICODE ECI 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 II.

When mixed with water in a suitable clean container, **Mape-Antique FC Ultrafine** forms a salt-resistant, smooth, transpirant skimming mortar with a plastic consistency which is easy to apply with a flat metal trowel on both vertical surfaces and on ceilings.

The properties of a mortar made from **Mape-Antique FC Ultrafine**, 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 Ultrafine** 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 Ultrafine** at both the fresh and hardened states.

## RECOMMENDATIONS

- **Mape-Antique FC Ultrafine** is not recommended for structures with high flows of capillary rising damp or high concentrations of soluble salts (we recommend using **Mape-Antique FC Grosso** or products from the **Silexcolor** or **Silancolor** ranges).
- Wait until the render is completely cured before applying **Mape-Antique FC Ultrafine**.
- **Mape-Antique FC Ultrafine** must be applied in layers max. 1 mm thick for each coat.
- Do not use **Mape-Antique FC Ultrafine** for casting into formwork (use **Mape-Antique LC** mixed with aggregates with a suitable grain size).
- Do not use **Mape-Antique FC Ultrafine** to make consolidating slurry for injection into structures (use **Mape-Antique I** or **Mape-Antique F21**).
- Do not use **Mape-Antique FC Ultrafine** for rendering.
- Never add additives, cement or other binders (lime and gypsum) to **Mape-Antique FC Ultrafine**.
- Do not apply thin coats of paint or coloured coating which could have a significant impact on the transpiration properties of **Mape-Antique FC Ultrafine** 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 **Antipluvial S** or **Antipluvial W**.
- Do not apply **Mape-Antique FC Ultrafine** if the temperature is lower than +5°C.

## APPLICATION PROCEDURE

### TECHNICAL INFORMATION FOR THE APPLICATION

|                                            |                                                                 |
|--------------------------------------------|-----------------------------------------------------------------|
| Composition of the mix:                    | 100 kg of <b>Mape-Antique FC Ultrafine</b><br>30-32 kg of water |
| Maximum applicable thickness per coat:     | approx. 1 mm                                                    |
| Recommended application temperature range: | Surrounding and substrate temperature from +5°C to +35°C        |
| Pot life of mix:                           | approx 1 h (at +20°C)                                           |

### Preparation of the substrate

The 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 Ultrafine** in a suitable clean container using an electric drill at low speed with a mixing attachment. Mixing by hand is not recommended. After pouring the minimum amount of clean water required into the container (6 litres per 20 kg bag of **Mape-Antique FC Ultrafine**), 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 remove any powder that has stuck to the sides or bottom of the container. Add more water if required up to a maximum of 6.4 litres per bag, including the water added at the start of mixing. Then mix **Mape-Antique FC Ultrafine** again for a further 2-3 minutes, depending on the efficiency of the mixer, to obtain an even, "plastic" mix.

The instructions for the preparation of the mortar to be used for the creation of concrete samples for laboratory tests are reported in the TECHNICAL DATA table.

### Application of the product

Spread on a first, even layer of **Mape-Antique FC Ultrafine** approximately 1 mm thick for each coat with a flat, metal trowel. Press down slightly with the trowel to help the mortar bond and to help expel any air entrapped

in the porosity of the render. Apply a further layer of the product as soon as the previous skimming layer starts to set.

To get a “mirror” finish, smooth over **Mape-Antique FC Ultrafine** once hardened with a slightly damp, flat metallic trowel. During hot and/or particularly windy weather, take special care when curing the mortar. Even though **Mape-Antique FC Ultrafine** may be applied on any type of lime-based render, including macro-porous de-humidifying render, the ultra-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**).



*Spread on a first layer of Mape-Antique FC Ultrafine*



*Part of application cycle for Mape-Antique FC Ultrafine*



*Smoothing over the product with a flat metal trowel*



*Spread on a second layer of Mape-Antique FC Ultrafine*

## FINISHING COAT

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

The surface of **Mape-Antique FC Ultrafine** 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

20 kg bags.

## COLOUR

White.

## CONSUMPTION

Approx. 1.3 kg/m<sup>2</sup> (per mm of thickness).

## STORAGE

12 months in a dry, covered environment 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](http://www.mapei.com).

PRODUCT FOR PROFESSIONAL USE.

## TECHNICAL DATA (typical values)

### PRODUCT IDENTITY

|                                   |                         |
|-----------------------------------|-------------------------|
| Definition according to EN 998-1: | GP                      |
| Consistency:                      | powder                  |
| Colour:                           | white                   |
| Maximum size of aggregate:        | < 0.1 mm                |
| EMICODE:                          | EC1 - very low emission |

### TECHNICAL INFORMATION FOR THE PREPARATION OF THE PRODUCT

|                         |                                                                           |
|-------------------------|---------------------------------------------------------------------------|
| Mixing ratio:           | 100 parts by weight of <b>Mape-Antique FC Ultrafine</b> with 31% of water |
| Composition of the mix: | Mix the product in compliance with the standard EN 1015-2                 |

### CHARACTERISTICS OF THE FRESH MIX (at +20°C and 50% R.H.)

|                     |                           |
|---------------------|---------------------------|
| Colour of mix:      | white                     |
| Consistency of mix: | thixotropic - trowellable |
| Density of mix:     | 1700 kg/m <sup>3</sup>    |

### FINAL PERFORMANCE

*According to the curing times defined in the test methods*

| Performance characteristic                 | Test method | Requirements<br>EN 998-1<br>GP – CS II                                                                                                                                 | Product performance                                 |
|--------------------------------------------|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| Compressive strength:                      | EN 1015-11  | CS I (from 0.4 to 2.5 MPa)<br>CS II (from 1.5 to 5.0 MPa)<br>CS III (from 3.5 to 7.5 MPa)<br>CS IV (≥ 6 MPa)                                                           | <b>2.5 MPa</b><br><b>Category CS II</b>             |
| Adhesion to substrate:                     | EN 1015-12  | declared value and failure pattern (FP)                                                                                                                                | <b>≥ 0.8 MPa</b><br><b>Failure pattern (FP) = B</b> |
| Water absorption due to capillary action:  | EN 1015-18  | W <sub>C 0</sub> not specified<br>W <sub>C 1</sub> ≤ 0.40 kg/(m <sup>2</sup> ·min <sup>0.5</sup> )<br>W <sub>C 2</sub> ≤ 0.20 kg/(m <sup>2</sup> ·min <sup>0.5</sup> ) | <b>Category W<sub>C 0</sub></b>                     |
| Water-vapour permeability coefficient (μ): | EN 1015-19  | declared value                                                                                                                                                         | <b>μ ≤ 20</b>                                       |

|                                                       |            |              |                      |
|-------------------------------------------------------|------------|--------------|----------------------|
| Thermal conductivity ( $\lambda_{10,dry}$ ):          | EN 1745    | chart value  | 0.36 W/m·K (P = 50%) |
| Reaction to fire:                                     | EN 13501-1 | Euroclass    | A2 – s1, d0          |
| Resistance to sulphates:                              | -          | not required | high                 |
| Saline efflorescence (after semi-immersion in water): | -          | not required | absent               |

## 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. The values declared in the TECHNICAL DATA table (typical values) were obtained in compliance with test methods and curing cycles defined in the technical standards referenced therein. Therefore, please note that the use of test procedures or methods other than those indicated in the table could lead to different values and that, in such cases, any liability of our company is excluded.

Please refer to the current version of the Technical Data Sheet, available from our website

[www.mapei.com](http://www.mapei.com)

## LEGAL NOTICE

The contents of this Technical Data Sheet ("TDS") may be copied into another project-related document, but the resulting document shall not supplement or replace requirements per the TDS in force at the time of the MAPEI product installation.

The most up-to-date TDS can be downloaded from our website [www.mapei.com](http://www.mapei.com).

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