

# MAPE-ANTIQUE NHL ECO RASANTE CIVILE

Fine-grained, breathable, pure natural hydraulic lime smoothing and levelling eco-mortar for a natural finish on render



## BENEFITS AND FEATURES

- Fine-textured smoothing
- Applicable on all types of render
- High breathability
- NHL based, cement-free
- For historic and green buildings

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

Mape-Antique NHL Eco Rasante Civile 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 2025 using Life Cycle Assessment (LCA) methodology, 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

Smoothing and levelling layers with a natural finish on macro-porous, de-humidifying render when renovating masonry of old buildings damaged by capillary rising damp, including buildings of historical and artistic interest.

Smoothing and levelling layers with a natural finish on breathable and “structural” base render.

Smoothing and levelling layers with a natural finish on lime-based render damaged by atmospheric agents, surrounding environmental conditions or ageing.

### Some application examples

- Natural finish on internal/external macro-porous, de-humidifying render with a rough finish.

- Natural finish on new render or old lime-based render on stone, brick, tuff and mixed masonry, including on buildings of historical and artistic interest and listed buildings.
- Natural finish on breathable and “structural” lime-based render with a rough finish.

## TECHNICAL CHARACTERISTICS

**Mape-Antique NHL Eco Rasante Civile** is a cement-free, ready-mixed, fine-textured smoothing and levelling mortar in powder form made from recycled material, selected lime sands, and special additives with very low emission of volatile organic compounds (EMOCODE EC1 Plus) according to a formula developed in MAPEI research laboratories.

This product is classified 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 NHL Eco Rasante Civile** forms a breathable smoothing and levelling mortar with a plastic consistency and a natural finish which is easy to apply with a flat metal trowel on walls and ceilings.

The properties of mortar made from **Mape-Antique NHL Eco Rasante Civile**, such as mechanical strength, modulus of elasticity and permeability to vapour, are very similar to the ones of a smoothing and levelling mortar made using lime, lime-Pozzolan or hydraulic lime originally used in the construction of old buildings. 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 NHL Eco Rasante Civile** at both the fresh and hardened states.

## RECOMMENDATIONS

- For structures with a high level of capillary rising damp and high concentrations of soluble salts, it is preferable to use products from the **Silexcolor** or **Silancolor** range as an alternative to **Mape-Antique NHL Eco Rasante Civile**.
- Wait until the render is fully cured before applying **Mape-Antique NHL Eco Rasante Civile**.
- Apply **Mape-Antique NHL Eco Rasante Civile** in layers up to 2 mm thick.
- Do not use **Mape-Antique NHL Eco Rasante Civile** to make consolidating slurry for injection into a structure (use **Mape-Antique I**, **Mape-Antique I-15** or **Mape-Antique F21**).
- Do not use **Mape-Antique NHL Eco Rasante Civile** for rendering.
- Never mix additives, cement or other binders (lime and gypsum) with **Mape-Antique NHL Eco Rasante Civile**.
- Do not apply thin coats of paint or coloured coating products that could have a high impact on the breathability of **Mape-Antique NHL Eco Rasante Civile** and, therefore, obstruct the evaporation of damp from the masonry. Use products from the **Silexcolor** or **Silancolor** lines, lime-based paints or water-repellent products, such as **Antipluvial S** or **Antipluvial W**.
- Do not apply **Mape-Antique NHL Eco Rasante Civile** 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 NHL ECO Rasante Civile</b> 22-24 kg of water
Maximum applicable thickness per coat:	2 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

Surfaces to be smoothed and levelled must be clean, sound and free of dust and crumbling areas. It is also recommended to score the surface of new render with a metal-tipped tool to remove any surface laitance and make it easier for the smoothing and levelling mortar to adhere and prevent the formation of air bubbles. Wet the surface of the render before applying the smoothing and levelling mortar.

### Preparation of the product



Prepare **Mape-Antique NHL Eco Rasante Civile** 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 (5.5 litres per 25 kg bag of **Mape-Antique NHL Eco Rasante 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 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 litres per bag including the water added at the start of mixing. Then mix **Mape-Antique NHL Eco Rasante Civile** 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 up to 2 mm thick of **Mape-Antique NHL Eco Rasante Civile** with a flat metal spreader. Press down slightly with the spreader to help it adhere and to expel any air entrapped in the porosity of the render. Apply further layers of the product as soon as the previous one starts to set.

If **Mape-Antique NHL Eco Rasante Civile** is used for skimming old lime or cement-based render, we recommend applying the product in two coats, inserting **Mapenet 150** alkali-resistant glass fibre mesh with 4 x 4.5 mm mesh size, in compliance with ETAG 004 guide.

Finish off the surface of **Mape-Antique NHL Eco Rasante Civile** with a slightly damp sponge float using a rotary movement just before it starts to set. During hot and/or particularly windy weather, take extra care when curing the product.

Even though **Mape-Antique NHL Eco Rasante Civile** may be applied on any type of lime-based render, including macro-porous de-humidifying render, its fine-textured finish tends to slightly reduce the vapour permeability of the render. In the presence of masonries that have high values of rising damp and soluble salts, it is better to use 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**).

## FINISH

**Mape-Antique NHL Eco Rasante Civile** must be fully cured before painting or coating it with other finishing products. Paint the surface with **Silexcolor Paint** or **Silancolor Paint** after applying their corresponding primers. If the render is not going to be painted or coated, especially when it will be exposed to rain, it may be protected with a transparent, breathable water-repellent product such as **Antipluviol S** siloxane resin impregnator in solvent or **Antipluviol W** siloxane resin impregnator in water dispersion.

## CLEANING

Remove the mortar from the tools with water before it hardens. Once hardened, cleaning is more difficult and must be carried out mechanically.

## PACKAGING

25 kg bags.

## COLOUR

Light brown.

## CONSUMPTION

approx. 1.4 kg/m<sup>2</sup> (per mm of thickness).

## STORAGE

12 months in a dry, covered area 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:	light brown
Maximum size of aggregate:	0.4 mm
EMICODE:	EC1 Plus - very low emission

### TECHNICAL INFORMATION FOR THE PREPARATION OF THE PRODUCT

Mixing ratio:	100 parts by weight of <b>Mape-Antique NHL ECO Rasante Civile</b> with 23% 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.)

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 EN 998-1 GP – CS II	Product performance
Compressive strength:	EN 1015-11	CS I (from 0.4 to 2.5 MPa) CS II (from 1.5 to 5.0 MPa) CS III (from 3.5 to 7.5 MPa) CS IV ( $\geq 6$ MPa)	Category CS II
Adhesion to substrate:	EN 1015-12	declared value and failure pattern (FP)	$\geq 0.5$ MPa Failure pattern (FP) = B
Water absorption due to capillary action:	EN 1015-18	$W_C 0$ not specified $W_C 1 \leq 0.40$ kg/(m <sup>2</sup> ·min <sup>0.5</sup> ) $W_C 2 \leq 0.20$ kg/(m <sup>2</sup> ·min <sup>0.5</sup> )	Category $W_C 2$
Water-vapour permeability coefficient ( $\mu$ ):	EN 1015-19	declared value	$\mu \leq 15$
Thermal conductivity ( $\lambda_{10,dry}$ ):	EN 1745	chart value	0.49 W/m·K (P = 50%)
Reaction to fire:	EN 13501-1	Euroclass	A2 – s1, d0

## 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.

## 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).*

**ANY ALTERATION TO THE WORDING OR REQUIREMENTS CONTAINED OR DERIVED FROM THIS TDS EXCLUDES THE RESPONSIBILITY OF MAPEI.**

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