

MAPEI-ANTIQUE ECOLASTIC

Two-component, elastic, salt-resistant, cement-free, lime and Eco-Pozzolan based coating for waterproofing and protecting construction elements, including in listed buildings



WHERE TO USE

Mapei-Antique Ecolastic is used to waterproof and protect irregular shaped surfaces, brick vaulted elements, screeds, wall caps, storage tanks, fountains and features, such as cornices, string courses, small columns, etc., on existing structures, including buildings with a National Heritage protection order and listed buildings. It may also be used to waterproof important structures below ground level subjected to positive or negative hydraulic lift.

Some application examples

- Waterproofing and protecting irregular shaped surfaces, brick vaulted elements, screeds, wall caps, storage tanks, fountains and features such as cornices, string courses, small columns, etc. on existing structures, including buildings with a National Heritage protection order and listed buildings.
- Waterproofing and protecting important structures below ground level subjected to positive or negative hydraulic lift.
- Protecting rendered masonry exposed to atmospheric agents.
- Protecting the surface of rendered masonries from the risk of coming into contact with seawater, de-icing salts or soluble salts in general.
- Elastic protective layer for new and repaired rendered masonry structures with small cracks caused by deformations, temperature variations or stress loads.

TECHNICAL CHARACTERISTICS

Mapei-Antique Ecolastic is a two-component, cement-free, elastic coating product made from lime, Eco-Pozzolan, fine-grained selected aggregates, special additives and synthetic polymers with very low emission of volatile organic compounds (EMICODE EC1 Plus), according to a formula developed in the MAPEI research laboratories.

When the two components are mixed together, they form a blend with a plastic consistency that is applied with a brush, spreader or by spray with a worm screw rendering machine equipped with a skimming nozzle, on both horizontal and vertical surfaces, at a thickness of at least 2 mm per layer. Thanks to the high content and quality of the synthetic resins in the product, the dry layer of **Mapei-Antique Ecolastic** maintains a high level of elasticity in all environmental conditions. Thanks to the consistency and characteristics of the product

the waste is reduced to a minimum. **Mape-Antique Ecolastic** is impermeable to water in positive pressure and impermeable to water with negative hydraulic lift up to 2 atm (20 metres of head). When cured it is resistant to soluble salts in general.

Mape-Antique Ecolastic adheres extremely well to render, brick and stone masonry, as long as they are sound and have no detached areas. This property, together with its resistance to the deteriorating effect of UV rays, ensures that structures protected and waterproofed with **Mape-Antique Ecolastic** have a long service life, including structures located in areas with particularly rigid climatic conditions and in coastal or industrial areas where the surroundings are particularly aggressive.

As there is no specific harmonized rule for the use of innovative products based on lime and free of cement on mixed masonries and renders, **Mape-Antique Ecolastic** has been CE marked according to the applications that are provided for by the following norms:

- EN 14891: "Liquid-applied water impermeable products for use beneath ceramic tiling bonded with adhesives" according to the principles CM, OI and P;
- EN 15824: "Specifications for external renders and internal plasters based on organic binders" according to the principles V3-W3;
- EN 1504-2: "Products and systems for the protection and repair of concrete structures" according to the principles PI, MC and IR.

RECOMMENDATIONS

- **Mape-Antique Ecolastic** must be applied up to a maximum of 2 mm thickness per layer.
- Do not use **Mape-Antique Ecolastic** for rendering at thicknesses higher than 2 mm per layer (use **Mape-Antique Intonaco NHL**, **Mape-Antique Strutturale NHL** or **MapeWall Render & Strengthen**).
- Do not add additives, cement, other binders (lime and gypsum) or water to **Mape-Antique Ecolastic**.
- Do not apply **Mape-Antique Ecolastic** if the temperature is lower than +5°C.
- Do not apply **Mape-Antique Ecolastic** on substrates saturated with water (leave them to dry prior to application).
- Protect **Mape-Antique Ecolastic** from rain and accidental water spills for the first 24 hours after application.

APPLICATION PROCEDURE

Substrate preparation

Apply the product directly on sound substrates with no detached areas. We recommend washing the substrate with water at low pressure beforehand.

If there are damaged or deteriorated areas in the substrate, remove all loose or crumbling material with hand or lower tools and all traces of dust, mould and any other material or substance that could affect the adhesion of **Mape-Antique Ecolastic** until the substrate is sound, clean and compact.

Clean the masonry with low-pressure water jets to remove any efflorescence or soluble salts present on the surface.

In the case of weak substrates that need to be consolidated, apply several coats of **Primer 3296** (as it is or diluted 1:1 with water), **Consolidante 8020**, or **Consolidante ETS** (refer to the relative Technical Data Sheet for each product).

For surfaces with small to medium size gaps, repair these areas with **Mape-Antique Allettamento** or **MapeWall Muratura Fine**. If larger areas need to be reintegrated or repaired, use the products mentioned above together with pieces of brick, stone, etc. as similar as possible to the original material.

When waterproofing masonry below ground level subjected to positive or negative hydraulic lift, including on listed structures, check the condition of the substrate. If the masonry is not sufficiently flat or it is weak, we recommend applying a 20 mm thick layer of **Mape-Antique Strutturale NHL** or **MapeWall Render & Strengthen** reinforced, if necessary, with metal or composite mesh (such as **Mapenet EM 30** or **Mapenet EM 40**).

Before applying **Mape-Antique Ecolastic**, apply a coat of **Primer 3296** diluted 1:1 with water with a brush or roller to improve its adhesion to the substrate.

Preparation of the product

Pour component B (liquid) into a suitable clean container and slowly add component A (powder) while stirring with a mixer. A mechanical mixer at low speed is recommended for this operation to prevent entraining too much air into the mix.

Carefully mix **Mape-Antique Ecolastic** for several minutes, making sure no powder remains attached to the sides or bottom of the container. Keep mixing for around 3 minutes until completely blended.

Leave the mix to stand for around 2 minutes to enable the polymer to be completely dispersed and then mix again for up to 2 minutes. Mixing by hand is not recommended.

Manual application

Apply two layers of **Mape-Antique Ecolastic** with a brush, roller or spreader within 60 minutes of mixing in two coats to form a layer at least 2 mm thick. Around 6 hours after applying the first coat apply the second coat. Always make sure that the first coat is perfectly dry before applying the second coat.

Spray application

Mape-Antique Ecolastic may be applied also by spray using a rendering machine equipped with a finishing lance and 10 mm max. diameter spray nozzle fed by an air compressor within a minimum capacity of 800 l/min. The final thickness must always be at least 2 mm. After applying the first coat, wait until it has cured (around 6 hours) before applying the second coat. For water under positive pressure, we recommend finishing off at least the first coat with a spreader.

If there is water under negative pressure, finish off the surface of each coat with a flat metal spreader to form an even, well sealed layer.



Mixing Mape-Antique Ecolastic



Protecting the cornice of a window with Mape-Antique Ecolastic



Waterproofing a wall cap with Mape-Antique Ecolastic



Finishing off Mape-Antique Ecolastic with a sponge float



Waterproofing the basin of a stone fountain

FINISHING TREATMENT

Finish off the surface of **Mape-Antique Ecolastic** a few minutes after application with a slightly moist sponge float to form an even finish.

If you would like a different colour to the standard one, add small amounts of inorganic pigment (natural pigments such as ferrous or mixed oxides) or **Mapecolor Pigment**.

Mape-Antique Ecolastic may be left with an exposed finish. For a coloured finish, use a product from the **Elastocolor** line of acrylic resin-based products in water dispersion.

PRECAUTIONS TO BE TAKEN DURING AND AFTER APPLICATION

No particular precautions need to be taken if the temperature is around +20°C.

In hot weather, do not expose the material to direct sunlight before use (powder and liquid).

In particularly dry, warm or windy weather, protect the surface with sheets after applying the product to prevent rapid evaporation.

CLEANING

Because of the high adhesion of **Mape-Antique Ecolastic**, including on metals, we recommend cleaning tools with water before it starts to set. Once hardened, cleaning must be carried out mechanically.

CONSUMPTION

- Application by roller: 1.65 kg/m² per mm of thickness.
- Application by spray: 2.2 kg/m² per mm of thickness.

NB: the consumption figures indicated are for a seamless film on a flat surface and are higher if applied on uneven substrates.

PACKAGING

15 kg unit:

- component A: 10 kg bag;
- component B: 5 kg can.

STORAGE

Mape-Antique Ecolastic component A may be stored for 12 months in its original packaging in a dry area.

Mape-Antique Ecolastic component B may be stored for 24 months.

SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

Mape-Antique Ecolastic component A contains special hydraulic binders that when in contact with sweat or other body fluids may cause corrosion and damage the eyes.

Mape-Antique Ecolastic component B is not considered hazardous according to the current norms regarding the classification of mixtures.

When applying the product, use 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 water and seek medical attention.

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

PRODUCT FOR PROFESSIONAL USE.

TECHNICAL DATA (typical values)		
PRODUCT IDENTITY		
	comp. A	comp. B
Consistency:	powder	liquid
Colour:	light hazel	white
Max. diameter of aggregate (mm):	0.355	/

Dry solids content (%):	100	53
APPLICATION DATA OF PRODUCT (at +21°C - 50% R.H.)		
Colour of mix:	light hazel	
Mixing ratio:	component A : component B = 2 : 1	
Consistency:	liquid	
Density of mix (kg/m ³):	1,470	
Application temperature:	from +5°C to +35°C	
Pot life of mix:	approx. 60 mins.	
Applicable thickness per layer (mm):	2	
EMICODE:	EC1 Plus - very low emission	

FINAL PERFORMANCE (2 mm thick layer)

Performance characteristic	Test method	Requirements according to EN 15824	Requirements according to EN 1504-2	Requirements according to EN 14891	Performance of product
Adhesion to brickwork (N/mm ²):	EN 1542	not required	not required	not required	0.8
Adhesion to concrete - after 28 days at +20°C and 50% R.H. (N/mm ²):		≥ 0.3	For flexible systems with no traffic: ≥ 0.8 with traffic ≥ 1.5	not required	1.2
Adhesion to Mape-Antique Strutturale NHL (N/mm ²):	after 28 days	not required	not required	not required	1.24
Static crack-bridging ability expressed as maximum width of crack - after 28 days at +20°C and 50% R.H. (mm):	EN 1062-7	not required	Class A1 (> 0.1 mm) Class A2 (> 0.25 mm) Class A3 (> 0.5 mm) Class A4 (> 1.25 mm) Class A5 (> 2.5 mm)	not required	2.93
Permeability to carbon dioxide (CO ₂) - diffusion in equivalent air thickness S _{DCO2} (m):	EN 1062-6	not required	> 50	not required	194
Permeability to water vapour - equivalent air thickness S _D (m):	EN ISO 7783	Cat. V1 (S _D < 0.14) Cat. V2 (0.14 ≤ S _D < 1.4) Cat. V3 (S _D ≥ 1.4)	Class I S _D < 5 m Class II S _D 5 m ≤ S _D ≤ 50 m Class III S _D > 50 m	not required	2.01 (Class I; V3)

Permeability to water (W) expressed as capillary absorption ($\text{kg/m}^2 \cdot \text{h}^{0.5}$):	EN 1062-3	Cat. W1 (> 0.5) Cat. W2 ($0.5 \leq S_D < 0.1$) Cat. W3 (≤ 0.1)	< 0.1	not required	0.01 (W3)
Thermal compatibility: heat cycles with immersion in de-icing salts (N/mm^2):	EN 13687-1	not required if $W < 0.1$	For flexible systems with no traffic: ≥ 0.8 with traffic ≥ 1.5	not required	0.96
Initial adhesion (N/mm^2):	EN 14891-A.6.2	not required	not required	≥ 0.5	0.76
Adhesion after immersion in water (N/mm^2):	EN 14891-A.6.3	not required	not required	≥ 0.5	0.52
Adhesion after exposure to heat source (N/mm^2):	EN 14891-A.6.5	not required	not required	≥ 0.5	1.06
Adhesion after freeze/thaw cycles (N/mm^2):	EN 14891-A.6.6	not required	not required	≥ 0.5	0.59
Adhesion after immersion in chlorinated water (N/mm^2):	EN 14891-A.6.8	not required	not required	≥ 0.5	0.8
Impermeability to positive hydraulic lift (1.5 bar for 7 days) expressed as water penetration:	EN 14891-A.7	not required	not required	no penetration and increase in weight ≤ 20 g	no penetration and increase in weight 5 g
Crack-bridging ability at $+23^\circ\text{C}$ (mm):	EN 14891-A.8.2	not required	not required	≥ 0.75	2.62
Crack-bridging ability at -5°C (mm):	EN 14891-A.8.3	not required	not required	≥ 0.75	1.16
Impermeability to negative hydraulic lift (1.5 bar for 24 hours) expressed as water penetration:	/	not required	not required	not required	no penetration
Thermal conductivity ($\lambda_{10,\text{dry}}$) ($\text{W/m}\cdot\text{K}$):	EN 1745	value declared λ	not required	not required	0.93
Reaction to fire:	EN 13501-1	Euroclass A ₁ to F			E

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

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