MAPE-ANTIQUE COLABILE

Salt-resistant, hi-flow natural hydraulic lime and ECO-POZZOLAN-based masonry mortar for reconditioning and consolidating masonry.

CO_2 FULLY OFFSET PRODUCTS

Mape-Antique Colabile is part of the *CO_2 Fully Offset in the Entire Life Cycle* line of products. CO_2 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.

WHERE TO USE

Reconditioning and consolidating stone, brick, tuff and mixed facing walls where the layer of mortar to be applied and the shape of the structure require the use of free-flowing products.

Some application examples

Mixing free-flowing, salt-resistant, volumetrically stable, fluid, high-strength masonry mortars for filling large internal cracks, gaps and cavities when reconditioning and consolidating structures such as:

- foundations, pillars, vaulted roofs and archways;
- "rubble masonries";
- stone, brick, tuff and mixed masonry in general on existing buildings, including listed buildings of historical or artistic interest.

TECHNICAL CHARACTERISTICS

Mape-Antique Colabile is a free-flowing, cement-free mortar in powder form for reconditioning and consolidating masonry made from natural hydraulic lime, Eco-Pozzolan, fine natural sand, special additives and micro-fibres with very low emission level of volatile organic compounds (EMICODE EC1 Plus) according to a formula developed in the MAPEI research laboratories. This product is classified G according to EN 998-2 Standards: *"Guaranteed performance, general-purpose masonry mortar for external use on elements with structural requirements",* class M 15, with compressive strength > 15 N/mm^2.
When mixed with water in a cement mixer or with a screw-type pump with a separate mixing unit, **Mape-Antique Colabile** forms a fluid, volumetrically-stable, salt-resistant mortar which is easy to pour and pump into formworks and structures with large internal gaps and cavities without segregating.

It may be advantageous to mix **Mape-Antique Colabile** with 0.25% of **Mapecure SRA**, a special curing agent with the capacity to reduce the amount of hygrometric shrinkage of mortar and, as a result, to reduce the risk of cracking during the plastic phase, that is, when the mix goes from the initial setting phase to the initial hardening phase. **Mapecure SRA** acts as an internal curing agent for the mortar and, thanks to its integration with some of the main components in the product, it allows the amount of final shrinkage to be considerably reduced compared with the standard product without the admixture.
Once hardened, the characteristics of the mortar made from **Mape-Antique Colabile**, such as mechanical strength, modulus of elasticity and porosity, are very similar to those of the mortar made from lime, lime-pozzolan or hydraulic lime originally used in the construction of old buildings. Compared with these types of mortar, however, **Mape-Antique Colabile** also has properties which make the product resistant to various chemical-physical aggressive phenomena, such as the presence of soluble salts and alkali-aggregate reactions. Besides, the mortar does not induce the formation of efflorescence and does not release soluble salts.
Mape-Antique Colabile is recommended for layers up to 4 cm thick. For thicker layers we recommend adding 30 to 50% in weight of suitable size aggregates (such as **Gravel 3-5** or **Gravel 6-10**) after consulting our Technical Services Department.
When working on particularly damp internal walls or in cold weather, the setting and hardening times of **Mape-Antique Colabile** are considerably longer and much more time than usual must be allowed for the product to cure. The product may give off a different odour for a while when curing under such conditions and may turn green in some areas. The odour and green colour will gradually disappear as the product and wall dry out until it takes on its characteristic light colour.
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 Colabile** at both the wet and hardened states.

RECOMMENDATIONS

- Do not use **Mape-Antique Colabile** to make consolidating slurry to inject into structures (use **Mape-Antique F21**, **Mape-Antique I** or **Mape-Antique I-15**).
- Do not use **Mape-Antique Colabile** to make transpirant render (use **Mape-Antique Intonaco NHL**).
- Do not use **Mape-Antique Colabile** to make “reinforced” render (use **Mape-Antique Strutturale NHL**).
- Do not use **Mape-Antique Colabile** to skim render (use **Mape-Antique FC Ultrafine**, **Mape-Antique FC Civile** or **Mape-Antique FC Grosso**).
- Never add additives, cement or other binders (lime and gypsum) to **Mape-Antique Colabile**.
- Do not apply **Mape-Antique Colabile** if the temperature is lower than +5°C.

APPLICATION PROCEDURE

TECHNICAL INFORMATION FOR THE APPLICATION	
Composition of mix:	100 kg of **Mape-Antique Colabile** 12.5 – 13.5 kg water 0.25 kg of **Mapecure SRA** *(optional)*
Application temperature range:	Surrounding and substrate temperature from +5°C to +35°C
Pot life of mix:	approx. 1h

Preparation of the substrate

If wooden formworks are used it is good practice to treat them beforehand with **Form-release agent DMA 1000** so that they don’t draw off water from the mortar. For non-absorbent formworks, on the other hand, such as in plastic or metal, use **Mapeform Eco Oil**.
If a metal reinforcement is employed, use galvanized bars or bars treated with a passivating product (such as **Mapefer 1K Zero**), or bars made from composite material (such as **Maperod**).
This type of material is required because, once carbonated, the pH level of lime-based products is so low that it does not provide sufficient protection for steel reinforcing bars when exposed to damp or humidity, which will cause the metal reinforcement to corrosion.
Make sure the reinforcement and/or strengthening is embedded deep enough so that it is covered by a layer of mortar at least 2 cm thick.
Remove all the deteriorated or detached material until the substrate is solid and compact and make sure there are no crumbling areas that could compromise the adhesion of the mortar. Previous repair work must also be

removed if it has not perfectly adhered to the substrate. Grout and “seal” any cracks and gaps in the face of the wall from where the mortar could seep out with **Mape-Antique Allettamento**.
Saturate the substrate with water to prevent it drawing off water from the mortar and compromising its final performance characteristics.
Remove any excess water so that the substrate is saturated and the surface is dry (SSD state). Compressed air may be used to speed up this process.
If it is not possible to carry out this operation, wet the substrate to help the mortar adhere correctly. Make sure that the structure has absorbed all the water before pouring the mortar.

Preparation of the product

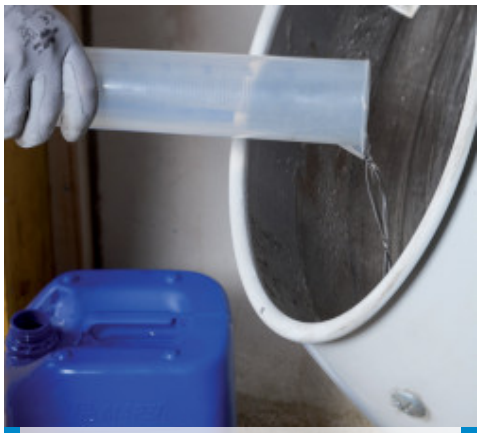
Mix **Mape-Antique Colabile** in a cement mixer or in the hopper of a screw-type pump with a separate mixer. Small amounts of the product may be prepared using an electric drill at low speed with a mixing attachment. Mixing by hand is not recommended. After adding around 3 litres of clean water for every 25 kg bag of **Mape-Antique Colabile** in a cement mixer or in the mixing unit of a screw-type pump, slowly add the powdered mortar in a constant flow. Mix for 3 to 4 minutes and then make sure the mix is well blended and even and that there are no lumps. Make sure there are no traces of powdered mortar stuck to the sides or bottom of the mixer.
For masonry exposed to the open air, if better curing of the product is required, we recommend adding 0.25% of **Mapecure SRA** in weight of the mortar to the mix (0.25 kg every 100 kg of **Mape-Antique Colabile**). Then mix **Mape-Antique Colabile** again for further 2-3 minutes, depending on the efficiency of the mixer, to obtain an even, “fluid” consistency.
Instructions for the preparation of mortar for making Lab test samples are reported in the TECHNICAL DATA section.
Tests to validate the product were carried out using a pump with a flow-control unit and the following fittings:

Type of pump	Mixer	Hose	Lance
2L6	vertical axis disk mixer	Ø 35 mm, length 15 m	*Standard*

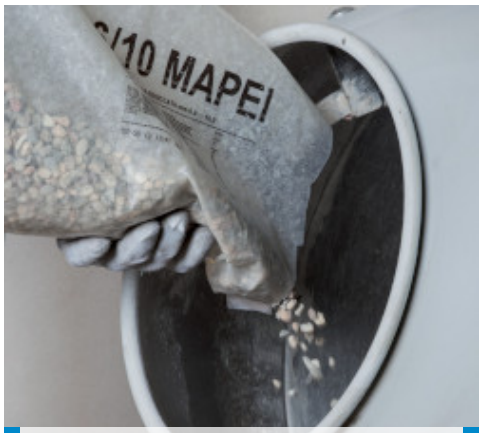
Pouring and pumping the product

Pour or pump **Mape-Antique Colabile** into the structure from one side only in a constant flow to help expel any air from inside the element to be regenerated and to fill all the gaps and cavities. Even though it is not necessary to vibrate the product, make sure all the gaps and cavities are completely filled.
To help the mortar flow into the more difficult areas, use wooden laths, round bars or a vibrator. After pouring or pumping **Mape-Antique Colabile** we recommend curing it very carefully to make sure that the mixing water does not evaporate too quickly, particularly in hot and/or particularly windy weather, otherwise surface cracks caused by plastic shrinkage may form. In such cases take special care when curing the mortar, especially during the first 36-48 hours, by spraying water on the surface, or with other systems to prevent the mixing water evaporating off too quickly.

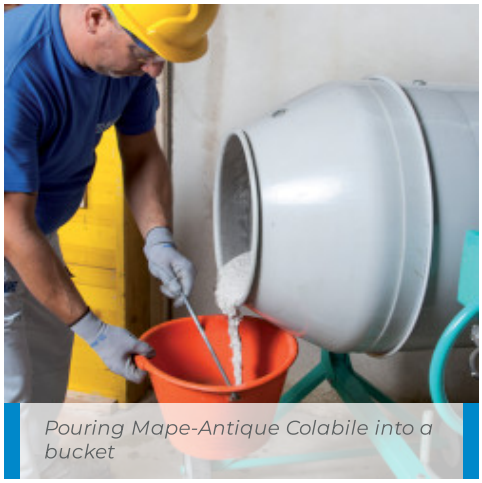
Placing formwork in position



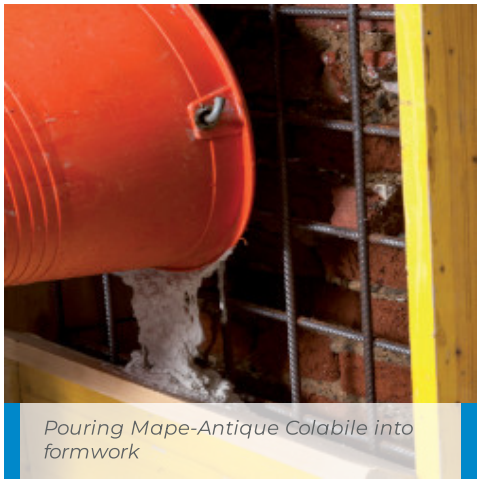
Adding Mapecure SRA



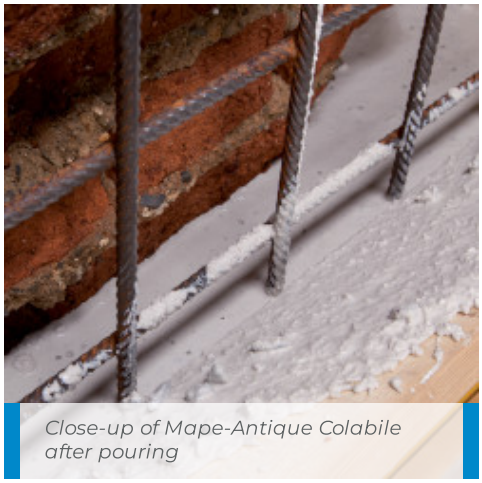
Adding Gravel 6-10



Pouring Mape-Antique Colabile into a bucket



Pouring Mape-Antique Colabile into formwork



Close-up of Mape-Antique Colabile after pouring

CLEANING

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

PACKAGING

25 kg bags.

CONSUMPTION

Approx. 1.83 kg/dm³ (of cavities to be filled).

STORAGE

Store **Mape-Antique Colabile** for 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 SDS available from our website www.mapei.com.
PRODUCT FOR PROFESSIONAL USE.

TECHNICAL DATA (typical values)

PRODUCT IDENTITY	
Definition according to EN 998-2:	G
Consistency:	powder
Colour:	white
Type of binder (EN 459-1):	NHL 3.5 and NHL 5 and Eco-Pozzolan
Maximum size of aggregate:	2.5 mm
Ion chloride content according to EN 1015-17: (minimum requirement according to EN 998-2 ≤ 0.10%)	< 0.05 %
EMICODE:	EC 1 Plus - very low emission

TECHNICAL INFORMATION FOR THE PREPARATION OF THE PRODUCT

Mixing ratio:	100 parts by weight of **Mape-Antique Colabile** with 13% water and 0.25% **Mapecure SRA**
Preparation of mix:	Product mixing according to EN 1015-2

CHARACTERISTICS OF FRESH MIX (at +20°C - 50% R.H.)	
Consistency of mix:	fluid - high-flow
Density of mix:	2250 kg/m³

FINAL PERFORMANCE
According to curing times defined in test methods

Performance characteristic	Test method	Requirements according to EN 998-2 G-M15	Performance of product
Compressive strength after 28 days (N/mm²):	EN 1015-11	from Class M 1 (> 1 N/mm²) to Class M d (> 25 N/mm²)	18 N/mm² Class M 15
Adhesion to substrate (brickwork) (N/mm²):	EN 1015-12	not required	≥ 1.0 MPa Failure Pattern (FP) = B
Slip resistance of steel reinforcing bars (Ø 16 mm) Maximum adhesion stress:	EN 1881 mod. (*)	not required	8 N/mm²
Slip resistance of glass reinforcing bars (Maperod G 40/10) Maximum adhesion stress:	EN 1881 mod. (*)	not required	8 N/mm²
Modulus of elasticity:	EN 13412	not required	10,000 N/mm²
Initial shear strength:	EN 998-2 Appendix C	chart value	0.15 N/mm²
Capillary action water absorption:	EN 1015-18	declared value	< 0.10 kg/(m²·min$^{0.5}$)
Coefficient of permeability to water vapour (μ):	EN 1015-19	not required	15/35
Thermal conductivity ($\lambda_{10,dry}$):	EN 1745 (table A.12)	chart value	1.1 W/m·K (P = 50%)
Reaction to fire:	EN 13501-1	Euroclass	Class A1
Resistence to sulphates:	-	not required	high
Saline efflorescence (after semi-immersion in water):	-	not required	absent

*(*) EN 1881 refers to a pull-out test on steel reinforcing bars anchored in a block of concrete made from a specified composition. For this product, the test was carried out on a masonry substrate made from solid bricks. Because of the nature of the product, the tests were carried out with a pull-out speed applied to the bar of 128 N/second rather than 1,600 N/second as specified in the standard. The steel bars were treated with **Mapefer 1K Zero**.*

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

LEGAL NOTICE

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