



MapeWall Muratura Fine

High-strength, transpirant, natural hydraulic lime-based mortar with very low emission level of volatile organic compounds for general building work, reinforced masonry, and touching-up and plumbing walls



WHERE TO USE

Bedding, touching-up and plumbing internal and external stone, brick, tuff and mixed load-bearing and buffer walls, including walls in listed buildings. Building new load-bearing and buffer walls or rebuilding existing walls, including the ones in seismic zones. Making reinforced construction joints for consolidating and renovating weak, existing walls.

Some application examples

- Building new load-bearing and buffer walls or rebuilding existing walls, including walls in listed buildings.
- Pointing between rows of stone, brick and tuff on natural-finish masonry.
- Making bedding and reinforced joints using rebar or composites (such as **Maperod**).
- Building facing walls with high performance masonry mortar in compliance with the standards applied in seismic zones.
- Touching-up and plumbing facing walls with gaps and/or uneven surfaces.

TECHNICAL CHARACTERISTICS

MapeWall Muratura Fine is a ready-mixed, high-strength, powdered transpirant masonry mortar with very low emission level of volatile organic compounds (EMICODE EC1 Plus) made from natural hydraulic lime (NHL 3.5 and NHL 5), reactive inorganic

compounds, natural sand and special additives according to a formula developed in the MAPEI research laboratories.

This product is classified as G according to EN 998-2 Standards: "Guaranteed-performance, general-purpose masonry mortar for external use on elements with structural requirements" Class M10, in that it reaches a compressive strength level of $\geq 10 \text{ N/mm}^2$.

Once **MapeWall Muratura Fine** has been mixed with water in a cement mixer or other suitable container, it forms a masonry mortar with a plastic-thixotropic consistency which is easy to apply by trowel.

Thanks to its special composition

MapeWall Muratura Fine has almost no hygrometric shrinkage, which drastically reduces the risk of cracks forming in the mortar. It also has properties that make it resistant to a wide range of aggressive chemical and physical phenomena.

Typical values are shown in the Technical Data table (see Application Data and Final Performance sections) which refer to the main characteristics of **MapeWall Muratura Fine** at both the fresh and hardened states.

RECOMMENDATIONS

- Because of the nature of the raw materials used to make this product, we are unable to guarantee that colours between separate production batches will be exactly the same. It is recommended, therefore, to take enough stock from the same production batch to complete each job.
- Do not use **MapeWall Muratura Fine** for pouring into formwork (use **Mape-Antique Colabile**).

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Re-building a masonry



Forming the installation bed



Plumbing

- Do not use **MapeWall Muratura Fine** to make consolidating slurry for injection into facing walls (use **MapeWall Inject & Consolidate**, **Mape-Antique I**, **Mape-Antique I-15** or **Mape-Antique F21**).
- Do not use **MapeWall Muratura Fine** to make high-strength or reinforced render (use **MapeWall Render & Strengthen** or **Mape-Antique Strutturale NHL**).
- Never add additives, cement or other binders (lime and gypsum) to **MapeWall Muratura Fine**.
- Do not apply **MapeWall Muratura Fine** if the temperature is lower than +5°C.

APPLICATION PROCEDURE

Substrate preparation

Remove all traces of loose or crumbling material, dust, mould and any other material or substance that could affect the adhesion of **MapeWall Muratura Fine** with either hand or power tools until the substrate is clean, sound and compact. Remove any weak bedding mortar between the masonry blocks. Clean the masonry with low-pressure water jets to remove any efflorescence or soluble salts present on the surface. Repeat this operation several times if necessary.

If weak substrates need to be consolidated, apply several coats of **Consolidante 8020** or **Primer 3296** (refer to the relative Technical Data Sheets).

Before applying **MapeWall Muratura Fine**, the substrate must be saturated to prevent it absorbing water from the mortar and affecting its final performance characteristics. Excess water must be left to evaporate off, so that the masonry is saturated and the surface is dry (s.s.d. condition). Compressed air may be used to speed up this process. If the substrate cannot be saturated with water, we recommend that it is dampened so that **MapeWall Muratura Fine** adheres correctly.

Preparation of the product

Prepare **MapeWall Muratura Fine** in a cement 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 pouring the minimum amount of clean water required into the mixer (4 litres per each 25 kg bag of **MapeWall Muratura Fine**), slowly add the powdered mortar in a continuous flow. Mix for approximately 3 minutes and check that the blend is well mixed, even and lump-free, and that any lumps of powder that have stuck to the sides or bottom of the mixer are removed. Add more water if required up to a maximum of 4.5 litres per bag including the water added at the start of mixing. Mix **MapeWall Muratura Fine** again for a further 2-3 minutes, depending on the efficiency of the mixer, to form an even, "plastic" and thixotropic mix.

Application of the product

Apply **MapeWall Muratura Fine** with a trowel. When touching-up or plumbing walls

or building facing walls and buffer walls, form an installation bed and then lay the construction elements (stone, bricks, blocks and tuff), pressing down slightly so that they are in the correct position. Remove excess mortar with a trowel.

If the mortar is used for pointing between blocks or bricks, apply a layer of mortar at least 5 mm thick and press it down slightly to encourage the adhesion. On natural finish walls, remove any excess mortar from between the bricks or blocks and pass a damp sponge over the mortar in the joints. If strengthening layers are applied using the reinforced laying technique with rebar or composites (such as **Maperod**), the reinforcement must be placed at a depth which guarantees that it is covered by a layer of mortar at least 2 cm thick.

Even though **MapeWall Muratura Fine** contains products which contrast the formation of micro-cracks, it is good practice to apply the mortar while the wall is not exposed to direct sunlight and/or wind. In such cases, such as during hot and/or particularly windy weather, take special care when curing the mortar, especially during the first 24-36 hours. Spray water on the surface or employ other systems to prevent the mixing water evaporating off too quickly.

FINISHING COAT

If a transpirant water-repellent coating is to be applied, especially on walls exposed to rain, wait until the mortar has completely cured and apply **Antipluviol S**, siloxane resin impregnator in solvent solution or **Antipluviol W**, siloxane resin impregnator in water solution.

Cleaning

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

PACKAGING

25 kg bags.

COLOUR

MapeWall Muratura Fine is available in 7 colours.

CONSUMPTION

1.65 kg/dm³ (of cavities to be filled).

STORAGE

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

This product complies with the prescriptions of Reg. (EC) N. 1907/2006 (REACH) - Annex XVII, article 47.

SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

MapeWall Muratura Fine contains cement that when in contact with sweat or other body fluids causes irritant alkaline reactions and allergic reactions to those predisposed. It can cause damage to eyes. During use wear protective gloves and goggles and take the usual precautions for handling

TECHNICAL DATA (typical values)

PRODUCT IDENTITY

Type of mortar (EN 998-2):	G - Guaranteed-performance, general-purpose masonry mortar for external use on elements with structural requirements	
Consistency:	powder	
Colour:	available in 7 different colours	
Maximum size of aggregate (EN 1015-1) (mm):	1.5	
Bulk density (kg/m³):	1,450	
Chloride content (EN 1015-17) (%):	Requirements according to EN 998-2	Performance of product
	< 0.1	< 0.05
EMICODE:	EC1 Plus - very low emission	

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

Mixing ratio:	100 parts of MapeWall Muratura Fine with 16-18 parts of water (4.0-4.5 litres of water per 25 kg bag)
Consistency of mix:	thixotropic
Bulk density of fresh mortar (EN 1015-6) (kg/m³):	1,850
Application temperature:	+5°C to +35°C
Workability time of wet mortar (EN 1015-9):	approx. 60 mins.
Minimum applicable thickness (mm):	5
Maximum applicable thickness (mm):	30

FINAL PERFORMANCE (17% mixing water, mixing carried out as specified in the "product preparation" section)

Performance characteristic	Test method	Requirements according to EN 998-2	Performance of product
Compressive strength after 28 days (N/mm²):	EN 1015-11	from Class M1 (> 1 N/mm²) to Class Md (> 25 N/mm²)	≥ 10 (Class M10)
Adhesion to substrate (brickwork) (N/mm²):	EN 1015-12	not required	≥ 0.40 Failure mode (FP) = B
Initial shear strength (f _{vk}) (N/mm²):	EN 998-2 Appendix C	tabulated value	0.15
Capillary action water absorption [kg/(m²·min ^{0.5})]:	EN 1015-18	declared value	< 0.5
Coefficient of permeability to water vapour (μ):	EN 1745 (table A.12)	tabulated value	15/35
Thermal conductivity (λ _{10,dry}) (W/m·K):	EN 1745 (table A.12)	tabulated value	0.75 (P = 50%)
Reaction to fire:	EN 13501-1	value declared by manufacturer	Class A1



Closing a duct



Preparing MapeWall Muratura Fine

MapeWall Muratura Fine



	TUFF	CREAM	IVORY	GREY	DOVE-GREY	BRICK-COLOURED	PINK
MapeWall Muratura Fine	•	•	•	•	•	•	•

N.B.: Due to the printing processes involved, the colours should be taken as merely indicative of the shades of the actual product

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.

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

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.

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



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

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

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