

MAPEWALL INTONACO BASE

Breathable natural hydraulic lime-based base render for external and internal use; to be applied by trowel or with a rendering machine



WHERE TO USE

Rendering old stone, brick, tuff and mixed masonries with a trowel or rendering machine before applying paint or thin layers of coloured coating.

Render to skim the surface of stone masonries without capillary rising damp.

Reintegrating lime-based renders deteriorated by atmospheric agents, surrounding environmental conditions or ageing.

Some application examples

- New internal and/or external breathable renders applied with a rendering machine or by trowel on stone, brick, tuff and mixed masonry without capillary rising damp.
- Levelling off uneven surfaces on the outer face of vaulted roofs.

TECHNICAL CHARACTERISTICS

MapeWall Intonaco Base is a ready-mixed, powdered breathable rendering mortar with very low emission of volatile organic compounds (EMICODE EC1 Plus) made from natural hydraulic lime, reactive inorganic compounds, natural limestone sand and special admixtures according to a formula developed in the 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 **MapeWall Intonaco Base** is mixed with water using a continuous-feed rendering machine or a cement mixer, it forms a breathable rendering mortar with a plastic-thixotropic consistency which is easy to apply by spray or trowel on vertical surfaces and ceilings.

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

RECOMMENDATIONS

- If capillary rising damp or sulphate salts are present, apply the restoration and dehumidifying treatment cycle from the **Mape-Antique** line (comprising **Mape-Antique Rinzafo** and **Mape-Antique MC** or **Mape-**

Antique LC mixed with aggregates with a suitable particle size) or the restoration and dehumidifying cycle from the **Poromap** line.

- **MapeWall Intonaco Base** must be applied in layers at least 10 mm thick.
- Do not apply **MapeWall Intonaco Base** on painted surfaces.
- Do not use **MapeWall Intonaco Base** for pouring into formwork.
- Do not use **MapeWall Intonaco Base** to make consolidating slurry for injection into structures (use **MapeWall Inject & Consolidate**).
- Do not use **MapeWall Intonaco Base** for “reinforced” render (use **MapeWall Render & Strengthen**).
- Do not use **MapeWall Intonaco Base** for building work (use **MapeWall Muratura Fine**).
- Do not use **MapeWall Intonaco Base** to skim surfaces; use products such as **Mape-Antique FC** or **Planitop**.
- Never add admixtures, cement or other binders (lime and gypsum) to **MapeWall Intonaco Base**.
- Do not apply **MapeWall Intonaco Base** if the temperature is lower than +5°C or higher than +35°C.
- Do not use **MapeWall Intonaco Base** if there are strong winds or on surfaces under direct sunlight.

APPLICATION PROCEDURE

Preparation of the substrate

MapeWall Intonaco Base may be applied directly on stone, brick, tuff and mixed walls as long as they are clean and solid and free of loose parts, dust, dirt, mould and soluble salts. If not, remove all loose parts and foreign bodies which could affect the bond of **MapeWall Intonaco Base** either manually or with power tools. Clean walls 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).

Fill any gaps and uneven areas in the masonry using the “touching-up” and “plumbing” techniques with **MapeWall Muratura Fine** or **MapeWall Render & Strengthen** as a base mortar and pieces of stone, brick or tuff.

In the case of particularly difficult masonries, such as those in stone or mixed materials, we recommend applying a first layer around 5 mm thick of **MapeWall Intonaco Base** mixed with **Planicrete** diluted 1 : 2 with water to even out the absorbency of the substrate and improve adhesion of the mortar.

If large surfaces need to be rendered, we recommend applying the product with a continuous-feed rendering machine and to place vertical guides on the walls to help apply the specified thickness and achieve the flatness required.

On new masonries wet the substrate with water before applying **MapeWall Intonaco Base**, whereas old masonries must be saturated to prevent particularly absorbent substrates drawing water off from the mortar and compromising 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 at least dampened to allow **MapeWall Intonaco Base** to bond correctly.

On mixed masonries or on walls out of plumb by more than 4-5 cm, which would lead to the layer of render having an irregular thickness, we recommend inserting Ø 2 mm galvanized metal mesh with a mesh size of 5 x 5 cm. Fasten the mesh to the masonry with nails, plugs or chemical anchors (such as **Mapefix VE SF**) with a small gap between the mesh and the substrate so that it becomes embedded in the middle of the layer of render.

Preparation of the product

MapeWall Intonaco Base must be prepared in a continuous-feed rendering machine if it is to be applied by spray or in a cement mixer if trowel application is preferred. Even though this product is suitable for application using hand tools, we recommend using a rendering machine for application on large surfaces to obtain a higher yield. 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.

Application of the product

Application with a rendering machine

Pour the contents of the bags of **MapeWall Intonaco Base** into the hopper of a continuous-mix rendering machine and set the water flow-rate at 330 l/h, depending on the type of mixer (rotor/stator) used, until a “plastic”, consistency is obtained.

The render may be applied with single-phase or three-phase continuous rendering machines equipped with a mixer (rotor/stator) that is suitable to the maximum nominal diameter of the aggregates in the render, which is mentioned in the product's TDS.

Note: differences may arise compared to the figures in the TECHNICAL DATA (typical values) table included in this TDS, according to the conditions at the time of product application and the rendering machine used.

Apply a single layer up to 20 mm thick of **MapeWall Intonaco Base**, starting from the bottom working upwards.

If the thickness required is higher than 20 mm, apply **MapeWall Intonaco Base** in several layers. Each layer must be applied without tamping and curing the previous layer.

We recommend applying the mortar from a distance of approximately 20 cm so that the product is applied evenly. After applying the mortar, wait a few minutes and level off the surface with an aluminium H-type or blade-type straight edge by going over the surface horizontally and vertically until it is flat.

Remove the vertical guides which were previously attached to the wall and fill the gaps with the same mortar. Finish off the surface of **MapeWall Intonaco Base** with a plastic, wooden or sponge float a few hours after the application, depending on the surrounding temperature and conditions.

Even though **MapeWall Intonaco Base** contains products which contrast the formation of micro-cracks, it is good practice to apply the mortar when 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 36-48 hours. Spray water on the surface or employ other systems to impede the mixing water evaporating off too quickly.

Application by trowel

Even though the product is particularly recommended for mixing and application with a rendering machine, it may also be mixed in a cement mixer and applied by trowel. In the latter case, it is more difficult to apply the mortar because of the cohesive nature of the mix.

After pouring the minimum amount of clean water required into the mixer (approx. 4.8 litres for each 25 kg bag of **MapeWall Intonaco Base**), slowly add the powdered mortar in a continuous flow. Mix for approximately 2 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 a further amount of water if required up to a total of 5.2 litres per bag, including the water added at the start of mixing. Then complete preparation of the **MapeWall Intonaco Base** by mixing for a further 1-2 minutes, depending on the efficiency of the mixer, to obtain an even, “plastic” and thixotropic mix.

Apply **MapeWall Intonaco Base** with a trowel in layers of up to 20 mm thick, starting from the lower part of the masonries.



Application of MapeWall Intonaco Base with a rendering machine on a new wall made from perforated bricks



Application of MapeWall Intonaco Base with a rendering machine on a wall made from solid bricks



Application of MapeWall Intonaco Base with a trowel on a wall made from blocks of tuff



Flattening the surface of MapeWall Intonaco Base with a straight-edge



Levelling off the surface of MapeWall Intonaco Base

FINISHING TREATMENT

If you require a finer finish than the one obtained by floating the surface of **MapeWall Intonaco Base**, once the mortar is fully cured, skim the surface with a product from the **Mape-Antique FC** range, one of the skimming products from the **Planitop** range or **Silexcolor Tonachino** or **Silancolor Tonachino**, coloured silicate-based and siloxane-based coating products respectively, after applying a coat of primer from the corresponding product line (**Silexcolor Primer** or **Silancolor Primer**).

As an alternative to the products mentioned above, if just a painted surface is preferred, use **Silexcolor Paint** or **Silancolor Paint** after applying their corresponding primers. Always wait until the mortar is fully cured (around 7 days per cm of thickness) before skimming the surface or applying any other type of finishing product. If the mortar is not going to be painted or coated, especially on constructions particularly exposed to rain, the surface may be protected with a transparent, breathable, water-repellent product such as **Antipluviol S** siloxane resin-based impregnator in solvent or **Antipluviol W** siloxane resin-based impregnator in water dispersion.

CLEANING

Mortar which has not yet hardened may be washed from tools using water. Once hardened, cleaning is more difficult and must be carried out mechanically.

PACKAGING

25 kg bags.

CONSUMPTION

approx. 15 kg/m² (per cm of thickness).

STORAGE

12 months in its original sealed packaging.

The product is available in special vacuum-packed polyethylene bags which may be stored outside for the entire construction phase of the site. Rain has no effect on its characteristics.

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.

PRODUCT FOR PROFESSIONAL USE.

TECHNICAL DATA (typical values)

PRODUCT IDENTITY

Type of mortar (EN 998-1):	GP- General purpose mortar for internal/external plaster render
Consistency:	powder
Colour:	light grey
Maximum size of aggregate (EN 1015-1) (mm):	1.4
Bulk density (kg/m ³):	1.400
EMICODE:	EC1 Plus - very low emission

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

Mixing ratio:	100 parts of MapeWall Intonaco Base with 19-21 parts of water (4.8-5.2 litres of water per 25 kg bag of product)
Colour of mix:	beige
Consistency of mix:	thixotropic
Consistency of wet mortar (EN 1015-3) (mm):	175
Density of wet mortar (EN 1015-6) (kg/m ³):	1.750
Application temperature:	+5°C to +35°C
Waiting time before floating:	2 hours
Workability time of wet mortar (EN 1015-9):	approx. 60 mins.
Minimum applicable thickness (mm):	10
Maximum applicable thickness per layer (mm):	20

FINAL PERFORMANCE (20% mixing water; mixed in compliance with EN 1015-2)

Performance characteristic	Test method	Requirements according to EN 998-1	Performance of product
Compressive strength after 28 days (N/mm ²):	EN 1015-11	CS I (0.4 to 2.5) CS II (1.5 to 5) CS III (3.5 to 7.5) CS IV (≥ 6)	(Category CS II)
Adhesion to substrate (N/mm ²):	EN 1015-12	declared value and failure mode (FP)	≥ 0.30 Failure mode (FP) = B
Capillary action water absorption [kg/(m ² ·min ^{0.5})]:	EN 1015-18	Category W0 (not specified) to Category W2 (≤ 0.2)	Category W 0

Thermal conductivity ($\lambda_{10, dry}$) (W/m·K):	EN 1745	declared value	0.57 ($P = 50\%$)
Coefficient of permeability to water vapour (μ):	EN 1015-19	declared value	≤ 12
Reaction to fire:	EN 13501-1	Euroclass	A1

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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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.

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