



Monolastic

Mono-component cementitious waterproofing membrane



WHERE TO USE

Waterproofing balconies, terraces, bathrooms and showers before laying ceramic coating.

Waterproofing concrete structures, renders and cementitious screeds.

Protecting renders or concrete with cracks caused by shrinkage, to block penetration of water and aggressive agents in the atmosphere.

TECHNICAL CHARACTERISTICS

Monolastic is a mono-component, cementitious waterproofing membrane with cementitious binders, selected, fine-grained inert materials and special, highly-flexible acrylic polymers. Once mixed with water, it forms a paste with excellent workability characteristics which is easy to apply with a trowel, roller or brush, and which may also be applied on vertical surfaces without running and without waste. **Monolastic** also bonds extremely well to all surfaces in concrete, masonry, ceramic and marble, if they are solid and clean.

RECOMMENDATIONS

- Do not add cement, inert materials or gypsum to **Monolastic**.
- Do not apply **Monolastic** at a thickness of more than 2 mm per layer.
- Never apply the product on substrates saturated with water.
- Do not apply if the temperature is lower than +5°C.

- If it rains, after applying the product, protect the surface for the first 24 hours.
- The maximum thickness of **Monolastic** must be no higher than 4 mm.

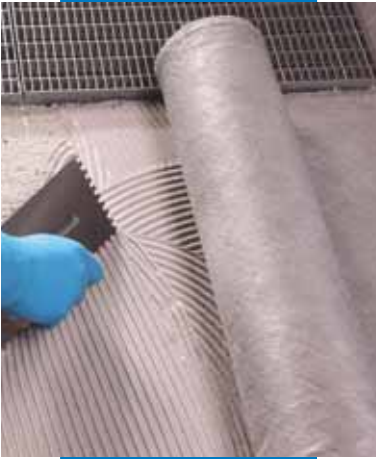
APPLICATION PROCEDURE

Preparation of the substrate

Pay particular attention to the laying surfaces and how they are prepared.

- **OLD FLOORS:**
old floors in ceramic, porcelain, klinker, terracotta, etc. must be bonded well to the substrate and must be completely free of substances which could compromise the bond, such as grease, wax, oil, paint and efflorescence. If the coating is not well bonded, remove it and smooth over the surface with **Adesilex P4** to make it flat.
- **CEMENTITIOUS SCRREDS:**
cracks caused by settling and plastic or hygrometric shrinkage must be sealed beforehand using **Eporip**. If extra layers of up to 2 mm thick need to be created (e.g. to form sloping surfaces or to even out hollows), use **Adesilex P4**.
- **RENDERS:**
cementitious and lime and cement-based renders must be well cured (we recommend at least 7 days for each cm of thickness of render applied), well bonded to the substrate, strong and free of dust and all kinds of paint. Dampen absorbent surfaces with water before applying **Monolastic** without saturating them.

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Applying a first layer of Monolastic welded with Mapetex Sel on a new screed



Applying a second layer of Monolastic on Mapetex Sel



Mixing of Monolastic

Before spreading **Monolastic** on the surface, special care must be taken around expansion joints and fillet joints between horizontal and vertical surfaces. In the case of structural joints, use **Mapeband TPE** bonded to the substrate using **Adesilex PG4**, covered by another layer of **Adesilex PG4** over the fabric with sand sprinkled on the surface to guarantee a good grip of **Monolastic**. In fillet joints between horizontal and vertical surfaces, apply **Mapeband** synthetic rubber fabric bonded in place with **Monolastic**.

Preparation of Monolastic

Thanks to the versatility of the product, the amount of mixing required varies from 7 litres when applied by roller to 6 litres when applied by trowel. Mixing must be carried out in a suitable clean container by slowly adding **Monolastic** while mixing. Then mix thoroughly for a further 3 minutes until it is completely blended, making sure that no powder remains attached to the sides and bottom of the container. A low-speed mechanical agitator is recommended for this operation, to avoid too much air being entrapped in the mix.

Avoid mixing the product manually.

Application of Monolastic

Monolastic must be applied in at least two layers with a roller or trowel within 60 minutes of mixing at a distance of at least 2 hours between each coat, and in all cases, only once the first coat has dried, until a final thickness of from 2 up to a maximum of 4 mm has been formed.

In areas with micro-cracks or which are particularly stressed, we recommend inserting **Mapenet 150** with a mesh size of 4.5x4 mm in the first layer of **Monolastic** while still fresh.

Monolastic must be smoothed over with a flat trowel immediately after applying the mesh.

To improve the yield strength and crack-bridging properties of **Monolastic**, we recommend inserting **Mapetex Sel** polypropylene perforated non-woven fabric (please refer to the **Mapetex Sel** Technical Data Sheet for details). While the first coat of **Monolastic** is still fresh, lay **Mapetex Sel** on the surface making sure that adjacent sheets of fabric overlap by 10 cm, then press firmly with a flat trowel so that all the fabric is perfectly impregnated. Once the first coat has completed its curing cycle, lay a second coat of **Monolastic** on the **Mapetex Sel** so that it is completely embedded, and smooth over with a flat trowel.

After completing the application cycle of **Monolastica**, wait at least 2 days before laying the ceramic.

Laying ceramic on Monolastic

Lay the tiles leaving a wide joint with a class C2 MAPEI adhesive, such as **Keraflex (C2TE)**, **Keraflex Easy (C2TE)**, **Keraflex Maxi S1 (C2TE S1)**, **Granirapid (class**

C2F, S1), **Elastorapid (class C2FTE, S2)** or **Keracrete + Keracrete Powder (C2T)**. When laying mosaic, it is also possible to use **Adesilex P10 + Isolastic** mixed with water at 50% (C2TE, S1). Grout the tile joints with a special cementitious grout (such as **Keracolor FF** or **Keracolor GG** mixed with **Fugolastic** or **Ultracolor Plus - CG2**) or epoxy grout (for example **Kerapoxy - class RG**). Seal expansion joints with a special MAPEI sealant (such as **Mapeflex PU21**, **Mapeflex PU20**, **Mapeflex PU40**, **Mapeflex PU50 SL** or **Mapesil AC** according to requirements).

Cleaning

While the product is still fresh, it may be removed from tools and hands using plenty of clean water. Once hardened, **Monolastic** may only be removed mechanically.

CONSUMPTION

1.1 kg/m² per mm of thickness.

PACKAGING

20 kg paper sacks.

STORAGE

Monolastic may be stored for up to 12 months in its original packaging in a dry place.

The product complies with the conditions of Annex XVII to Regulation (EC) N° 1907/2006 (REACH), item 47.

SAFETY INSTRUCTIONS FOR PREPARATION AND INSTALLATION

Monolastic contains cement which, in contact with perspiration or other body fluids, produces an irritating alkaline reaction and, in those subjects sensitive to such products, an allergic rash. Use protective gloves and goggles.

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

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 applications. For this reason, anyone who intends using the product must ensure beforehand that it is suitable for the envisaged application. In every case, the user alone is 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 web site www.mapei.com

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

TECHNICAL DATA (typical values)

PRODUCT IDENTITY

Consistency:	powder
Colour:	grey
Apparent density (kg/m³):	1.1
Dry solids content (%):	100
Storage:	12 months in a dry place in its original packaging
Hazard classification according to EC 1999/45:	irritant. Before using, refer to the "Safety instructions for preparation and installation" paragraph and the information on the packaging and Safety Data Sheet
Customs class:	3824 5090 00

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

	Acceptance limits according to EN 14891	Performance figures for Monolastic
Mixing water (%):	31-33	
Colour of dry product:	light grey	
Consistency of fresh mix:	plastic-trowable	
Density of mortar (kg/m³):	1,450	
Pot life of mix:	approx. 1 hour	
Application temperature range:	from +5°C to +35°C	
Minimum thickness per layer (mm):	1	
Maximum thickness per layer (mm):	2	

FINAL PERFORMANCES	Acceptance limits according to EN 14891	Performance figures for Monolastic
Impermeability to water under pressure according to EN 14891-A.7 (1.5 bar for 7 days of positive lift):	no penetration	no penetration
Crack-bridging ability at +20°C according to EN 14891-A.8.2 (mm):	> 0.75	> 0.75
Initial bond strength according to EN 14891-A6.2 (MPa):	> 0.5	1.3
Bond strength after immersion in water according to EN 14891-A.6.3 (MPa):	> 0.5	0.6
Bond strength after application of heat source according to EN 14891-A.6.5 (MPa):	> 0.5	1.5
Bond strength after freeze-thaw cycles according to EN 14891-A.6.6 (MPa):	> 0.5	0.8
Bond strength after immersion in basic water according to EN 14891-A.6.9 (MPa):	> 0.5	0.8
Flexibility after 28 days according to DIN 53504 modified – expressed as elongation (%):	not required	15
Reaction to fire:	class declared by manufacturer	E

Bond strength values according to EN 14891 measured using **Monolastic** and a C2-type cementitious adhesive according to EN 12004. Average thickness of **Monolastic** 2 mm.



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