MONOLASTIC

One-component cementitious elastic waterproofing mortar

WHERE TO USE

Waterproofing balconies, terraces, bathrooms, showers and swimming pools before laying ceramic coating.
Waterproofing concrete structures, renders and cementitious screeds.

TECHNICAL CHARACTERISTICS

Monolastic is a one-component, cementitious waterproofing membrane with cementitious binders, selected fine-grained inert materials and special highly-flexible acrylic polymers. When 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 slumping. **Monolastic** also bonds extremely well to all surfaces in concrete, masonry, ceramic and marble, if they are sound and clean.

ADVANTAGES

· Excellent workability and certified performance characteristics (with 5.4-5.8 litres of mixing water).
· CE marking in compliance with EN 14891 (CM01P).
· Certified crack-bridging capacity, including at low temperatures (-5°C).
· Guaranteed, durable waterproofing of substrates with just a 2 mm thick layer.
· Excellent adhesion on numerous types of substrate if prepared according to specification: no demolition work required.
· The polyethylene packaging can be left open without harming the product.
· Experience: product available on the market for more than 10 years.

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.
· Do not add more than the recommended amount of water.
· After applying the product, protect the surface from rain for the first 24 hours.
· The maximum thickness of **Monolastic** must not be higher than 4 mm.
· Do not apply on light weight substrates.
· Do not apply on cementitious substrate not sufficiently cured.

APPLICATION PROCEDURE

Preparation of the substrate

Pay particular attention to the laying surfaces and their preparation.

· 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. To remove all traces of material and substances that could affect adhesion of **Monolastic**, clean the floor with a mixture of water and 30% caustic soda, then thoroughly rinse the floor with water to eliminate all traces of caustic soda.

· CEMENTITIOUS SCREEDS:
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 **Planitop Fast 330**, **Adesilex P4**.

· RENDERS:
cementitious render must be cured sufficiently (7 days per centimetre of render), 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.

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** or **Mapeband Easy** bonded with **Monolastic**, or **Mapeband SA**.
To seal drain holes use special kits from the **Drain** range.

Preparation of Monolastic

Pour 5.4-5.8 litres of water into a clean container and slowly add **Monolastic** while mixing.
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 brush, 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 2 mm up to a maximum of 4 mm.
In areas with micro-cracks or which are particularly stressed, we recommend inserting alkali-resistant glass fibre mesh **Mapenet 150** 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.
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 **Mapetex Sel** so that it is completely embedded, and smooth over with a flat trowel.
For application on small balconies, two layers of **Monolastic** may be applied without reinforcement as long as the total dry thickness is at least 2 mm.
After completing the application cycle of **Monolastic**, wait at least 2 days before laying the ceramic tiles.

Laying ceramic tiles on Monolastic

Bond in place using C2 class cementitious adhesive (**Keraflex** or **Keraflex Maxi S1**) or, for more rapid work, C2F class adhesive (**Granirapid**, **Elastorapid** or **Ultralite S1 Quick**). When laying mosaic, use **Adesilex P10** + **Isolastic** mixed with water at 50% (C2TE). Grout the tile joints with a special class CG2 cementitious grout (such as **Keracolor FF** or **Keracolor GG** mixed with **Fugolastic** or **Ultracolor Plus**) or epoxy grout, class RG (**Kerapoxy**). Seal expansion joints with a special MAPEI sealant (**Mapesil AC**, **Mapesil LM** or **Mapeflex PU45 FT**).

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

Applying a second layer of Monolastic on Mapenet 150

Mixing of Monolastic

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

Approx. 1.1 kg/m² per mm of thickness.

PACKAGING

20 kg polyethilene bags.

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

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.

Monolastic: *one-component cementitious membrane for waterproofing balconies, terraces and bathrooms in compliance with the requirements of EN 14891*	
TECHNICAL DATA (typical values)	
PRODUCT IDENTITY	
Consistency:	powder
Colour:	grey
Bulk density (g/cm³):	1.1
Dry solids content (%):	100
APPLICATION DATA (at +20°C - 50% R.H.)	
Mixing water (%):	27-29
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 PERFORMANCE (average thickness 2.0 mm)	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 +23°C according to EN 14891-A.8.2 (mm):	≥ 0.75	> 0.75
Crack-bridging ability at low temperature -5°C according to EN 14891-A.8.3 (mm):	≥ 0.75	> 0.75
Initial bond strength according to EN 14891-A.6.2 (N/mm²):	≥ 0.5	1.3
Bond strength after immersion in water according to EN 14891-A.6.3 (N/mm²):	≥ 0.5	0.6
Bond strength after application of heat source according to EN 14891-A.6.5 (N/mm²):	≥ 0.5	1.5
Bond strength after freeze-thaw cycles according to EN 14891-A.6.6 (N/mm²):	≥ 0.5	0.7
Bond strength after immersion in basic water according to EN 14891-A.6.9 (N/mm²):	≥ 0.5	0.7
Flexibility after 28 days according to DIN 53504 modified – expressed as elongation (%):	not required	20
Bond strength after immersion in chlorine water according to EN 14891-A.6.8 (N/mm²):	≥ 0.5	0.65
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.*

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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