

PLANITOP 110

Single-component, normal setting cementitious mortar for smoothing concrete surfaces



WHERE TO USE

Protection, smoothing and levelling of concrete surface imperfections up to 2 mm in a single application.

Some application examples

- Smoothing surface imperfections and blemishes in concrete before coating.
- Filling of blow holes and surface imperfections in pre-cast units.
- Minor honeycombs up to a maximum of 3 mm depth.
- Smoothing irregular surfaces of cement-based renders that have good mechanical strength.

TECHNICAL CHARACTERISTICS

Planitop 110, is a powdered, single-component cement-based mortar with selected fine aggregates, special additives and synthetic polymers manufactured according to a formula developed in MAPEI Research Laboratories. When mixed with water, **Planitop 110** forms a paste that is easy to apply on vertical surfaces in thicknesses up to 2 mm in a single application. As a result of its formulation **Planitop 110** bonds extremely well to all concrete surfaces, and forms a compact, strongly adhered dust free layer when cured.

RECOMMENDATIONS

- Do not use **Planitop 110** for single applications greater than 2 mm in one layer in large areas. For larger repairs please consult your local MAPEI technical representative for advice on suitable products from the MAPEI repair range.
- Do not use **Planitop 110** at temperatures lower than +5°C.
- Do not add cement or aggregate to **Planitop 110**.
- For the protection of hydraulic projects and surfaces subject to abrasion, use **Mapefinish**.

APPLICATION PROCEDURE

Preparation of the substrate

The surface which is to be re-profiled must be thoroughly clean and sound. Remove dust, loose particles and any traces of form release agents using high pressure waterjetting. Remove any excess surface water using oil free compressed air or a sponge if needed.

Preparation of the mortar

Pour in to a rust-free mixing vessel 6.2-6.4 liters of water needed to obtain the paste consistency required for the application. Use a slow speed heavy duty drill with an appropriate mixing attachment and mix at a low speed between 300 rpm and 500 rpm. Mix for 1 to 2 minutes, then check to make sure the mix is well blended, scraping any unmixed powder from the bottom and the sides of the mixing vessel. Allow the paste to settle then mix again for another 1 to 2 minutes. Avoid mixing manually as this may adversely affect several of the mortar's characteristics, including mechanical strength, shrinkage, impermeability etc.

Application of the mortar

Apply the mortar to the surface with a trowel to a maximum thickness of 1 to 2 mm per layer. Smoothing **Planitop 110** can be done with a flat trowel or wet sponge float.

Cleaning

Mortar that has not yet hardened can be removed from tools with water. After setting, cleaning is very difficult and can only be done mechanically.

CONSUMPTION

1.3 kg/m² per mm of thickness (depending on the substrate conditions).

YIELD

15.3 liters/20 kg.

PACKAGING

20 kg bags.

STORAGE

When stored in dry conditions in the original unopened bags **Planitop 110** has a shelf life of 12 months. If stored at high temperature and or high humidity conditions, the shelf life may be reduced.

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

Consistency: powder

Colour: grey

Maximum size of aggregate (mm): 0,1

Bulk density (kg/m³): 1200

Dry solids content (%): 100

Chloride ions content - EN 1015-17 (%)
– minimum requirement ≤ 0.05%: ≤ 0.05

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

Colour of mix: grey

Mixing ratio: 100 parts of **Planitop 110** with 30-31 parts of water (approx. 6.2 - 6.4 liters of water per 20 kg bag)

Consistency of mix: thixotropic - trowellable

Density of mix (kg/m³): 1600

Application temperature range: from +5°C to +40°C

Pot life of mix: approx. 1 hour

Surface drying time: approx. 30 minutes

Waiting time before applying coating:		3 days on surfaces smoothed over using Planitop 110 ; 7 days on surfaces repaired with mortar from the Mapegrout range followed by a finishing layer with Planitop 110	
FINAL PERFORMANCE (22% mixing water)			
Performance characteristics	Test method	Requirements according to EN 1504-2 coating (C) MC and IR principles	Performance of product
Compressive strength (N/mm²):	EN 12190	not required	> 16 (after 28 days)
Flexural strength (N/mm²):	EN 196-1	not required	> 4 (after 28 days)
Bond strength on concrete (substrate in MC 0.40) according to EN 1766 (N/mm²):	EN 1542	For rigid systems with no traffic: ≥ 1.0 with traffic: ≥ 2.0	≥ 1 (after 28 days)
Thermal compatibility measured as bonding according to EN 1542 (N/mm²): – freeze-thaw cycles with deicing salts: – thunder-shower cycle:	EN 13687-1 EN 13687-2	For rigid systems without traffic: ≥ 1.0 with traffic: ≥ 2.1	≥ 1
Impermeability expressed as coefficient of permeability to free water (kg/m²·h ^{0,5}):	EN 1062-3	W < 0,1	W < 0.1 - Class III (low permeability) according to EN 1062-1
Permeability to water vapour -equivalent air thickness S _D - (m):	EN ISO 7783-1	Class I S _D < 5 m Class II 5 m ≤ S _D ≤ 50 m Class III S _D > 50 m	S _D < 0.5 Class I (permeable to water vapour)

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 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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