MAPEI

IN COMPLIANCE WITH EUROPEAN STANDARD
EN 1504-2 (C)
PRINCIPLES
MC-IR
SURFACE PROTECTION SYSTEMS FOR CONCRETE

Planitop 200

CE
EN 1504-2

Single-component cementitious mortar with high bonding strength for interior and exterior smoothing of rough surfaces and for finishing walls (fine texture effect)

WHERE TO USE

To smooth and level interior and exterior concrete walls, cementitious renders and cement lime mortar, old quartz paints, texured paints, gypsum wall-boards etc.

Some application examples

- Levelling and finishing concrete walls, cementitious renders or cement lime mortar before painting.
- Smoothing walls before installing ceramic tiles.
- Smoothing walls, even over existing paint such as washable acrylic paints, quartz paints, texured paints etc. as long as they are sound, clean and well anchored.
- Smoothing old wall mosaic coverings.
- Smoothing gypsum wall-board panels (treated beforehand with **Primer G**).
- Smoothing mineral wood panels (such as Eraclit®).

TECHNICAL CHARACTERISTICS

Planitop 200 is a normal setting single-component cementitious mortar, based on special high resistance binders, selected fine graded aggregate, special additives and synthetic powder polymers prepared according to a formula developed in the MAPEI research laboratories.
The special composition of **Planitop 200**, mixed only with water, imparts high bonding strength, easy application with a flat trowel and easy finishing with a metal or sponge float.
Planitop 200 can be applied in a maximum thickness of 3 mm for every single coat.

For greater thickness but not more than 6 mm, two coats must be applied and a 4x4.5 mm MAPEI **Mapenet 150** (alkali-resistant glass fibre mesh in compliance with ETAG 004) inserted between the first and second coat.

Ceramic wall tile coverings can be applied over **Planitop 200** after 4 days using the MAPEI cementitious adhesive. Coloured finishings such as products from the **Elastocolor, Silexcolor** or **Silancolor** range, can be applied over **Planitop 200** after a minimum of 7 days (in good weather).

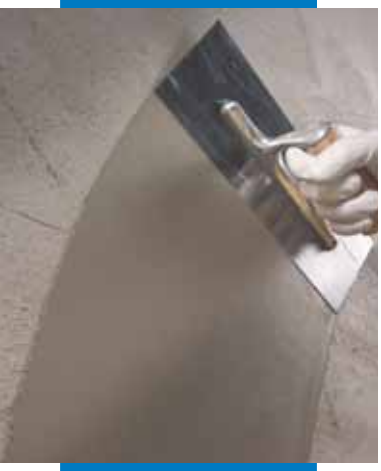
Planitop 200 corresponds to the principles defined in EN 1504-9 ("*Products and systems for protecting and repairing concrete structures: definitions, requirements, quality control and conformity assessment. General principles for the use of products and systems*") and the requirements of EN 1504-2 coating (C) ("*Surface protection systems for concrete*") according to MC and IR principles.

RECOMMENDATIONS

- Do not use **Planitop 200** for greater thicknesses (> 6 mm use: **Mapegrout Thixotropic**, **Mapegrout T40**, **Mapegrout BM**, **Mapegrout Hi-Flow**, **Planitop 400** or **Planitop 430**).
- Do not apply **Planitop 200** at temperatures below +5°C.
- Do not add cement or other aggregates to **Planitop 200**.
- For the protection of hydraulic structures and surfaces subject to abrasion use **Mapefinish**.

Planitop 200

Preparation of Planitop 200



Applying Planitop 200 on concrete

- Before applying **Planitop 200** make sure the substrate is sound and free from dust.
- Do not use on very windy days and do not apply **Planitop 200** when the surfaces are exposed to direct sunlight, because rapid drying at may occur.
- If applied in two successive coats, insert MAPEI **Mapenet 150** between the coats.
- Apply a first protective primer coat (e.g. **Primer G**) over gypsum based renders.
- Do not apply products containing solvents on **Planitop 200**.
- Do not apply over dehumidifying renders (use **Mape-Antique FC** finishing or the coloured finishings from the **Silexcolor** and **Silancolor** line).

APPLICATION PROCEDURE

Preparing the substrate

Surfaces that need to be treated must be perfectly clean and sound. If the substrate is covered with of old paint, make sure the paint is consistent and well bonded to the substrate. However, it is recommended to prepare the substrate by mechanical means removing any loose parts and existing crumbling finishings, then wash all surfaces that need to be treated with water in order to remove any dust residues that could interfere with bonding. Before applying **Planitop 200** wait until all surface water has disappeared or remove the water with dampened cloths. Absorbent substrates such as renders or concrete must be dampened with water beforehand. Substrates covered in of old paint must be perfectly clean and dry when **Planitop 200** is applied.
If after washing the substrate still remains dusty, apply a protective primer coat from the MAPEI range (refer to the Technical Assistance).

Preparing the mortar

Pour 5-5.75 litres of water into a suitable clean bucket and slowly add, while mechanically stirring, a 25 kg bag of **Planitop 200**. Carefully mix for several minutes making sure to blend in any powder from the sides and bottom of the bucket to ensure a thorough mix.
Mix until perfectly homogeneous and completely lump-free. A low speed mechanical stirrer is particularly recommended in order to avoid air entrainment.
Avoid preparing the mix manually.

Applying the mortar

Apply a maximum 3 mm thick layer of mortar per coat with a metal trowel.
The surface finishing of **Planitop 200** can be carried out just a few minutes after its application with the same metal trowel or with a traditional dampened sponge float.

Periods of high temperatures in windy environment and on sunny days, it is recommended to mist spray water over the smoothened surface after setting (in other words when finger prints are not left on the surface) and during the following days, when the mortar is completely hard, in order to avoid that a fast drying and hygrometric shrinkage could produce abnormal cracks.

Cleaning

Due to the high bonding strength of **Planitop 200**, it is recommended to wash working tools before the mortar sets.
Once the mortar has set, the product can be cleaned only by mechanical means.

COLOURS

Grey and white.

CONSUMPTION

Approximately 1.3 kg/m² per mm of thickness.

PACKAGING

25 kg bags.

STORAGE

Planitop 200 can be stored for 12 months in its original unopened packaging in a dry place.

Manufactured in compliance with the regulations of the 2003/53/EC Directive.

SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

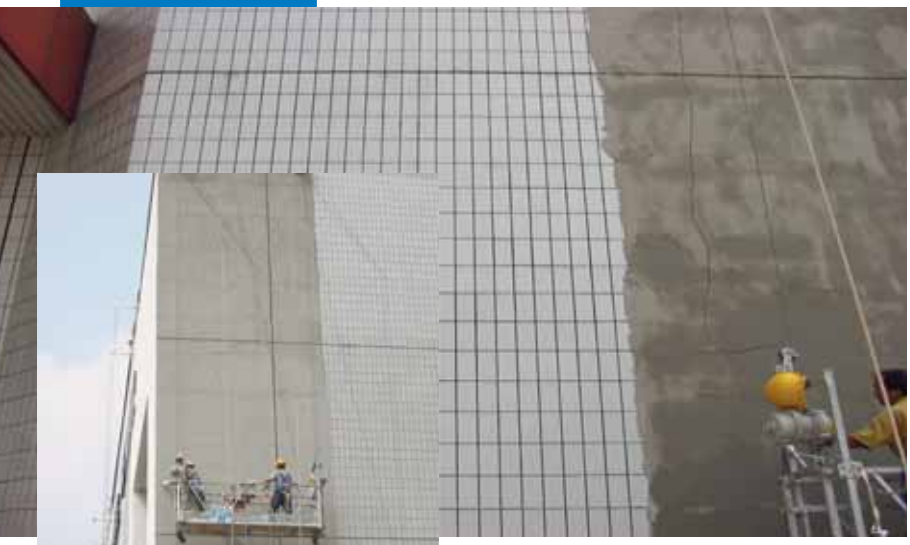
Planitop 200 contains cement that on contact with sweat or other body fluids produces an irritant alkaline reaction and allergic reactions to those predisposed.
Wear protective gloves and goggles.
For further information refer to the Safety Data Sheet.

PRODUCT FOR PROFESSIONAL USE.

WARNING

Although the technical details and recommendations contained in this 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.

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



Applying Planitop 200 on ceramic substrate

Planitop 200: single component, normal setting cementitious mortar for protecting concrete; conforms with the requirements of EN 1504-2 coating (C), MC and IR principles.

TECHNICAL DATA (typical values)

PRODUCT IDENTITY	
Consistency:	powder
Colour:	grey or white
Maximum size of aggregate (mm):	0.5
Bulk density (kg/m³):	1,250
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 application" paragraph and the information on the packaging and Safety Data Sheet
Customs class:	3824 50 90
APPLICATION DATA OF PRODUCT (at +20°C - 50% U.R.)	
Colour of mix:	grey or white
Mixing ratio:	100 parts of **Planitop 200** with 20-23 parts of water (5-5.75 litres of water per 25 kg sack)
Consistency of mix:	thixotropic - applicable by trowel
Density of the mix (kg/m³):	1,600
Application temperature range:	from +5°C to +35°C
Pot life of mix:	approximately 1 hour 30 minutes
Setting time: **– initial:** **– end:**	 > 3 hours < 8 hours
Waiting time before laying ceramic:	4 days
Waiting time before painting:	7 days

FINAL PERFORMANCE (21% mixing water - 2.5 mm thick layer)

Performance characteristics	Test method	Requirements according to EN 1504-2 coating (C) MC and IR principles	Performance of product
Compressive strength (MPa):	EN 12190	not required	> 5 (after 1 day) > 12 (after 7 days) > 20 (after 28 days)
Flexural strength (MPa):	EN 196/1	not required	> 2.5 (after 1 day) > 4.0 (after 7 days) > 5.0 (after 28 days)
Bond strength on concrete (substrate in MC 0.40) according to EN 1766 (MPa):	EN 1542	For rigid systems with no traffic: ≥ 1.0 with traffic: ≥ 2.0	> 2 (after 28 days)
Thermal compatibility measured as bonding according to EN 1542 (MPa) **– freeze-thaw cycles with deicing salts:** **– thunder-shower cycle:**	 EN 13687/1 EN 13687/2	 For rigid systems without traffic: ≥ 1.0 with traffic: ≥ 2.0	 ≥ 1 ≥ 1
Impermeability expressed as coefficient of permeability to free water ($kg/m^2 \cdot h^{0.5}$):	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	$S_D < 0.5$ Classe I (permeable to water vapour)
Abrasion after 28 days (in air) **– loss in weight (g):**	ISO 5470	not required	< 5 (after 100 revs)
Reaction to fire:	Euroclass	according to value declared by manufacturer	E

Planitop 200

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1054-12-2009

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