



Planitop 210

Water-repellent, cementitious skimming mortar with a fine, natural finish for concrete and plastic coatings



WHERE TO USE

Fine-grained, natural-finish skim coats on internal and external concrete, cementitious and lime-mortar render, old quartz paint and scratch-effect plastic coatings.

Some application examples

- Levelling and finishing masonry and concrete walls, cementitious and lime-cement render before painting.
- Smoothing the surface of walls, including walls painted with washable acrylic or quartz-based paint, plastic coating, etc., as long as they are sound, clean and well-bonded.
- Skimming plasterboard panels (if gypsum-based skimming mortar has been applied between the panels, treat beforehand with **Primer G**).
- Skimming mineral wood panels (such as Eraclit®).

TECHNICAL CHARACTERISTICS

Planitop 210 is a one-component, water-repellent, normal-hardening, fine-grained, powdered cementitious skimming mortar available in grey and white, made from special, high-strength binders, selected aggregates, special additives and synthetic polymers according to a formula developed in the MAPEI research laboratories. When **Planitop 210** is mixed with just water, its special composition forms highly-adhesive mortar with high plasticity, which makes it easier to spread with a smooth trowel and facilitates finishing operations with a metal or sponge float.

Planitop 210 may be applied at a maximum thickness of 3 mm per coat. Apply thicker layers up to a maximum of 6 mm in two coats, and place **Mapenet 150** alkaline-resistant glass fibre mesh (in conformity to ETAG 004 guidelines) with a mesh size of 4 x 4.5 mm between the first and second coat.

Mapenet 150 must also be used when the surface to be skimmed is made up of different types of material.

In good weather, apply coloured finishing products from the **Silexcolor**, **Silancolor**, **Quarzolite**, **Elastocolor**, **Colorite** or **Dursilite** ranges 1 week after applying **Planitop 210**. The latter product may be used for decorating internal or external surfaces as long as they are partially covered and protected from direct exposure to the sun and rain.

Planitop 210 conforms 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 minimum requirements of EN 1504-2 coating (C) according to principles MC and IR (*"Concrete surface protection systems"*) and is classified as GP (*"General purpose mortar for internal/external render"*), category CS IV according to EN 998-1.

RECOMMENDATIONS

- Do not apply on glass mosaic (use **Planitop 200** or **Planitop 207**).



Planitop 210



Removing all the plastic covering that has not adhered



Application of Planitop 210

- Do not use **Planitop 210** for thick layers (for layers > 6 mm use: **Mapegrout LM2K**, **Mapegrout 430** or **Planitop Smooth & Repair**).
- Do not apply **Planitop 210** if the temperature is below +5°C.
- Do not add cement or aggregates to **Planitop 210**.
- To protect hydraulic structures or surfaces subject to abrasion, use **Mapefinish** or **Mapefinish HD**.
- Before applying, make sure the substrate is solid and that there are no traces of dust.
- Do not use **Planitop 210** if there are strong winds or on surfaces exposed to direct sunlight.
- If two layers are applied one after the other insert **Mapenet 150**.
- Apply a coat of suitable primer on gypsum-based substrates (such as **Primer G**).
- Do not apply products containing solvents over **Planitop 210**.
- Do not apply on de-humidifying render (use a skimming mortar from the **Mape-Antique** range or a coloured finishing product from the **Silexcolor** or **Silancolor** ranges).

APPLICATION PROCEDURE

Substrate preparation

Surfaces must be perfectly clean and solid. Old paintwork must be sound and well-bonded to the substrate. We recommend, therefore, that substrates are prepared carefully by mechanically removing all loose or detached areas of existing finish, and then cleaning the surface where the mortar is to be applied with water to remove any traces of dust which could impede adhesion. Before applying **Planitop 210**, wait until the film of surface water has evaporated or dry it off with compressed air or dry rags. Absorbent substrates, such as render and concrete, must be dampened beforehand with water, while old paintwork must be perfectly dry when applying **Planitop 210**. If the substrate is still powdery after cleaning, which indicates a lack of surface cohesion, apply a primer from the MAPEI range to consolidate the surface (please refer to the Technical Services Department).

Preparation of the mortar

Pour 5.25-6.0 litres of water into a suitable clean container and slowly add the contents of a 25 kg bag of **Planitop 210** while mixing. Mix thoroughly for several minutes, making sure that there are no traces of powder stuck to the sides or bottom of the container. Keep mixing until thoroughly blended (completely lump-free). A mechanical mixer at low speed is recommended for this operation to prevent entraining too much air into the mix. Avoid mixing the product manually.

Application of the mortar

Spread the mortar on the surface prepared as described above in coats up to 3 mm thick using a smooth metal trowel. Finish off the surface of **Planitop 210** using the same trowel or a traditional damp sponge float a few minutes after application. During hot or windy weather, or in particularly hot areas, spray water on the surface of the smoothing compound when it starts to set (that is, when it may be pressed lightly without leaving fingerprints) and over the next few days when the mortar has completely hardened, to avoid quick drying and hygrometric shrinkage which may cause cracks to form.

PRECAUTIONS TO BE TAKEN DURING AND AFTER APPLICATION

No particular precautions need to be taken if the temperature is around +20°C. If the temperature is particularly high or low, or if there are strong winds, follow the normal precautions for cementitious materials. To get the best finish and protection for the substrate, we recommend using a coloured finishing product from the **Silexcolor**, **Silancolor**, **Elastocolor**, **Quarzolite**, **Colorite** or **Dursilite** ranges. The latter product may only be used for decorating internal or external surfaces if they are partially covered and protected.

Cleaning

Because of the high adhesion of **Planitop 210**, we recommend cleaning tools with water before the mortar starts to set. Once the mortar has set, tools must be cleaned mechanically.

COLOUR

Grey or white.

CONSUMPTION

Approximately 1.3 kg/m² per mm of thickness.

PACKAGING

25 kg bags.

STORAGE

Planitop 210 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 APPLICATION

Planitop 210 is irritant, it contains cement that when in contact with sweat or other body fluids causes irritant alkaline reaction and allergic reactions to those predisposed. It can cause damage to eyes. In case of contact with eyes or skin wash immediately with plenty of water and seek medical attention. It is recommended to use protective gloves and goggles.

Planitop 210: water-repellent, cementitious skimming mortar with a fine-grained, natural finish for concrete and plastic coatings in conformity to EN 1504-2 and EN 998-1 standards

TECHNICAL DATA (typical values)

PRODUCT IDENTITY

Consistency:	powder
Colour:	grey or white
Maximum size of aggregate (EN 1015-1) (mm):	0.4
Bulk density (kg/m ³):	1,310
Dry solids content (%):	100

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

Colour of mix:	grey or white
Mixing ratio:	100 parts of Planitop 210 with 21-24 parts of water (5.25-6.0 litres of water per 25 kg bag)
Consistency of mix:	thixotropic-trowelable
Density of mix (EN 1015-6) (kg/m ³):	1,740
Maximum applicable thickness (mm):	3
Application temperature range:	from 5°C to 35°C
Pot life of mix:	approximately 1 hour
Setting time: - start: - finish:	> 3 h < 8 h
Minimum waiting time before painting with a coloured finishing product from the Silexcolor, Silancolor, Elastocolor, Quarzolite, Colorite or Dursilite ranges:	7 days

FINAL PERFORMANCE (22% mixing water)

Performance characteristic	Test method	Requirements according to EN 1504-2 coating (C) principles MC and IR	Performance of product
Compressive strength (N/mm ²):	EN 12190	not required	> 2 (after 1 day) > 8 (after 7 days) > 16 (after 28 days)
Flexural strength (N/mm ²):	EN 196/1	not required	> 2 (after 1 day) > 3 (after 7 days) > 4 (after 28 days)
Adhesion to concrete (substrate type MC 0.40) according to EN 1766 (N/mm ²):	EN 1542	for rigid systems with no traffic: ≥ 1.0 with traffic: ≥ 2.0	≥ 1 (after 28 days)
Thermal compatibility measured as adhesion according to EN 1542 (N/mm ²): - freeze-thaw cycles with de-icing salts: - storm cycles:	EN 13687/1 EN 13687/2	for rigid systems with no traffic: ≥ 1.0 with traffic: ≥ 2.1	≥ 1 ≥ 1
Impermeability expressed as coefficient of permeability to free water (kg/m ² .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 thickness of air S_0 (m):	EN ISO 7783/1	Class I $S_0 < 5$ m Class II $5 \text{ m} \leq S_0 \leq 50$ m Class III $S_0 > 50$ m	$S_0 < 0.5$ Class I (permeable to water vapour)
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 (from 0.4 to 2.5)	category CS IV
		CS II (from 1.5 to 5.0)	
		CS III (from 3.5 to 7.5)	
		CS IV (≥ 6)	
Adhesion to substrate (concrete) (N/mm ²):	EN 1015-12	declared value and failure mode (FP)	≥ 1 failure mode (FP) = B
Adhesion to substrate (plastic coatings) (N/mm ²):	/	not required	> 1 (*)
Capillary action water absorption [kg/(m ² .min ^{0.5}):	EN 1015-18	W 0 (not specified) W 1 (≤ 0.40) W 2 (≤ 0.20)	category W 2
Coefficient of permeability to water vapour (μ):	EN 1015-19	declared value	≤ 35
Thermal conductivity ($\lambda_{10, dry}$) (W/m.K):	EN 1745	chart value	0.76 (P=50%)
Reaction to fire:	EN 13501-1	Euroclass	E



Floating the surface of Planitop 210

(*) Adhesion may vary according to the type of plastic covering.

Planitop 210

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

PRODUCT 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 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

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



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