

PLANEX HR

Rapid-drying, moisture-resistant, self-levelling
smoothing mortar for layers 1 to 10 mm thick



CLASSIFICATION ACCORDING TO EN 13813

Smoothing layers of **Planex HR** applied according to the specifications in this Technical Data Sheet are classified as CT-C25-F6-A1_{FL} in compliance with EN 13813 Standards.

WHERE TO USE

Planex HR is suitable for internal and external applications and is used to level off new and existing substrates and remove differences in thickness from 1 to 10 mm to make them suitable for laying all types of floor covering, including resilient and textile.

In the absence of special aesthetic requirements, **Planex HR** can be left exposed as a finished floor and can be walked on (even outdoors). In case of transit of trolleys or vehicles **Planex HR** must be covered with suitable flooring.

Planex HR is particularly recommended for use in areas where high resistance to static and dynamic loads is required. Thanks to its special formulation and good resistance to moisture, **Planex HR** may also be used for external applications or on substrates that are not completely dry or which have a high level of residual moisture.

Some application examples

- Smoothing over concrete floors and cementitious screeds or made from **Topcem**, **Mapecem**, **Mapecem Pronto** or **Topcem Pronto**.
- Smoothing over anhydrite substrates.
- Smoothing over heated floors.
- Smoothing over existing concrete, terrazzo, ceramic, natural stone and magnesite floors.
- Smoothing over concrete and cementitious-based substrates before bonding non-welded resilient floor tiles with reactive adhesives in areas that need to be washed or rinsed frequently.
- Smoothing over concrete substrates with rising damp before placing PVC isolating sheets (such as **Mapelay**) on which resilient flooring for sporting and non-sporting use is to be laid.

TECHNICAL CHARACTERISTICS

Planex HR is a grey coloured powder made from special rapid-hydrating and rapid-setting cement, selected silica sand, resins and special admixtures according to a formulation developed in the MAPEI research laboratories.

When **Planex HR** is mixed with water, it forms a rapid-drying, free-flowing, self-levelling mortar with good workability that adheres very strongly to the substrate. **Planex HR** can be applied with an automatic pressure pump at distances over 100 m.

Planex HR is applied in layers from 1 to 10 mm thick per layer. It does not shrink or crack and reaches a high level of compressive and flexural strength and resistance to indentation and abrasion.

Planex HR is ready to receive flooring after approximately after 3 hours in case of ceramic tiles and 24 hours in case of resilient and wood flooring. **Planex HR** has very low emissions of volatile organic compounds (EMICODE EC1 Plus).

RECOMMENDATIONS

- Do not add water to the mix once it starts to set.

- Do not add lime, cement or gypsum to the mix.
- If a coat of **Planex HR** needs to be applied once the preceding one is completely dry, first apply a suitable primer (such as **Eco Prim T Plus** or **Primer G**).
- Do not use **Planex HR** on metal, wood that is not highly stable, rubber, PVC or linoleum.
- Do not use **Planex HR** if the temperature is lower than +5°C.
- Do not apply **Planex HR** in thicknesses less than 3 mm when wooden flooring needs to be installed.

APPLICATION PROCEDURE

Preparation of the substrate

Substrates must comply with the specifications contained in the applicable standards for each country.

Substrates must be sound and free of all traces of dust, loose or detached parts, varnish, wax, oil, rust and gypsum. Cementitious-based surfaces that are not sufficiently sound must be removed or, where possible, consolidated with a suitable MAPEI system (such as **Prosfas**, **Eco Prim PU 1K** or **Primer MF**).

Repair any cracks present in the substrate with **Eporip** or **Eporip SCR**.

Treat dusty or particularly porous internal concrete surfaces with a suitable primer such as **Primer G** diluted 1:1 with water or **Eco Prim T Plus** diluted with up to 1:4 with water, to hold the dust and even out the absorbency of the substrate.

The same substrates if external must be treated with a suitable epoxy-based primer such as **Primer MF**, **Primer SN** or **Mapecoat TNS Primer EP/W**. Immediately after the application of **Primer MF**, **Primer SN** or **Mapecoat TNS Primer EP/W**, the surface must be broadcasted with dry quartz sand (grain size ≥ 1.2 mm).

The remains of sand which are not well bonded must be removed before applying **Planex HR**.

Anhydrite screeds may only be levelled off with **Planex HR** after sanding the surface and applying a coat of a suitable primer (such as **Primer G** or **Eco Prim T Plus** applied neat or diluted 1:1 with water).

Prime existing ceramic and natural stone surfaces with a coat of **Eco Prim T Plus** or **Eco Prim Grip Plus** after cleaning the surface with a suitable detergent and, if required, abrading the surface mechanically.

Preparation of the mix

Pour a 25 kg bag of **Planex HR** into a container with 5-5.25 litres of clean water while mixing and keep mixing mix with an electric mixer at low-speed to form a smooth, lump-free, self-levelling mix. Larger quantities of **Planex HR** can be prepared in suitable mixers.

Leave to stand for 2 to 3 minutes and then mix again for a short time. The product is now ready for use.

Each batch of **Planex HR** must be applied within 20-30 minutes of mixing at +23°C.

Spreading the mix

Spread a layer of **Planex HR** from 1 to 10 mm thick with a large metal spreader or rake, holding the spreader at a slight angle to obtain the thickness required. **Planex HR** can also be applied with an automatic pressure pump for renders.

Thanks to its remarkable self-levelling properties, **Planex HR** immediately loses small imperfections (trowel marks, etc.).

If a second layer is required, we recommend applying it as soon as the first one sets to foot traffic (approx. 1 hour at +23°C); if the first layer has completely dried and hardened, we recommend applying a suitable primer beforehand.

Planex HR is suitable to receive all kind of floor coverings after 3 hours in case of ceramic tiles and 24 hours in case of resilient and wood flooring, at +23°C (the time can vary, depending on the room temperature and humidity).



Application of **Planex HR** on existing ceramic in damp surroundings



Application of **Planex HR** with a metal trowel

CLEANING

Remove **Planex HR** from hands, tools and surfaces while still wet with water. Once hardened, cleaning must be carried out mechanically.

CONSUMPTION

The consumption rate of **Planex HR** is 1.7 kg/m² per mm of thickness.

PACKAGING

Planex HR is available in 25 kg bags.

STORAGE

Planex HR remains stable for 12 months if stored in a dry place. If stored for longer periods Planex HR may take longer to set but without affecting its final characteristics.

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)

Complies with the following standards:

- EN 13813 CT-C25-F6-A1_{FL}
- French: superior quality skimming compound (P3) according to UPEC classification

PRODUCT IDENTITY

Consistency:	fine powder
Colour:	grey
Bulk density:	1,350 kg/m ³
Dry solids content:	100%
EMICODE:	EC1 Plus - very low emission

APPLICATION DATA (at +23°C and 50% R.H.)

Mixing ratio:	20-21% - 5-5,25 l per bag
Applied thickness per layer:	1-10 mm
Density of mix:	2,100 kg/m ³
pH of mix:	approx. 12
Application temperature:	from +5°C to +35°C
Workability time:	20-30 mins.
Setting time:	50-90 mins.
Set to foot traffic:	3-4 hours
Waiting time before bonding flooring:	
- ceramic:	3 hours
- stone:	24 hours
- resilient and wood flooring:	24/48 hours

FINAL PERFORMANCE

Compressive strength:
– after 28 days:

25 N/mm²

Flexural strength:
– after 28 days:

6.5 N/mm²

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

LEGAL NOTICE

The contents of this Technical Data Sheet ("TDS") may be copied into another project-related document, but the resulting document shall not supplement or replace requirements per the TDS in effect at the time of the MAPEI product installation.

For the most up-to-date TDS and warranty information, please visit our website at www.mapei.com.

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