

ULTRAPLAN EC25

Self-levelling, ultra quick-hardening smoothing compound for thicknesses from 1 to 10 mm



BENEFITS AND FEATURES

- Excellent self-leveling and surface finish
- High adhesion to the substrate
- High compressive and flexural strength and abrasion resistance
- Ready for the installation of ceramic coverings after 3 hours and of resilient or wooden floors after 12 hours
- EMICODE EC1 Plus (very low emission of VOC)

CLASSIFICATION ACCORDING TO EN 13813

Ultraplan EC25 smoothing compound as described in this data sheet is classified as CT-C25-F7-A2_{FL}-s1 according to European Standard EN 13813.

WHERE TO USE

Ultraplan EC25, is used for levelling and smoothing differences in thicknesses from 1 to 10 mm on new or existing substrates, preparing them to receive all kinds of flooring where excellent resistance to loads and traffic is required.

Ultraplan EC25 is especially suitable for areas subject to wheeled chairs.

Ultraplan EC25 is for interior use only.

Some application examples

- Levelling concrete slabs or screeds based on cement, **Mapecem**, **Mapecem Pronto**, **Topcem**, **Topcem Pronto**, anhydrite, and magnesite, including those with embedded underfloor heating systems.
- Levelling existing cement, terrazzo, ceramic, and natural stone floors.

TECHNICAL CHARACTERISTICS

Ultraplan EC25 is a grey powder consisting of special cement with rapid setting and hydration, selected graded silica sand, resins and special admixtures, prepared according to a formula developed in the MAPEI Research Laboratories.

Mixed with water, **Ultraplan EC25** becomes a highly fluid and easily workable mortar, with perfect self-levelling capacity, high adhesion to the substrate, and ultra-rapid drying.

Ultraplan EC25 can be applied with an automatic pressure pump for distances over 100 m.

Ultraplan EC25 can be spread in thicknesses up to 10 mm per coat without shrinkage, cracking or crazing, and develops very high compressive and flexural strength, as well as resistance to indentation and abrasion.

Ultraplan EC25 is ready to receive flooring after approximately after 3 hours in case of ceramic tiles and 12 hours in case of resilient and wood flooring.

Ultraplan EC25 has very low emissions of volatile organic compounds (EMICODE EC1 Plus).

RECOMMENDATIONS

- Do not add more water to the mix once it starts to set.
- Do not add lime, cement, or gypsum to the mix.
- Do not use **Ultraplan EC25** for exterior applications.
- Do not use **Ultraplan EC25** on substrates subject to continuous rising damp.
- If a coat of **Ultraplan Contract** needs to be applied once the preceding one is completely dry, first apply a suitable acrylic primer (such as **Eco Prim T Plus** or **Primer G**).
- Do not apply **Ultraplan EC25** at temperatures below +5°C.
- Do not apply **Ultraplan EC25** 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 locally applicable standards.

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

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

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

Anhydrite screeds may be levelled off with **Ultraplan EC25** only after having sanded the surface and having applied a suitable primer (such as **Primer G** undiluted or **Eco Prim T Plus** diluted up to 1:2 with water).

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

Preparation of the mix

While mixing with a low-speed mixer, pour in a container containing approximately 5.6 l of clean water a 23 kg-bag of **Ultraplan EC25** to obtain a homogeneous and lump-free mix. Larger quantities can be prepared in suitable mixers.

After 2-3 minutes of rest, the mix should be re-stirred, and then it is ready for use.

It is recommended to add approximately 20-30% of quartz with a grain size of 0.4 or 0.8 mm when **Ultraplan EC25** is used for thicknesses greater than 10 mm (max. 20 mm). For further information, consult MAPEI Technical Services Department.

Make sure to prepare a quantity of **Ultraplan EC25** that can be applied within 20-30 minutes (at +23°C).



Spreading the mix

Apply **Ultraplan EC25** in a single coat from 1 to 10 mm with a large metal trowel or rake by keeping the trowel slightly inclined to obtain the desired thickness.

Ultraplan EC25 can also be applied with an automatic pressure pump for renders.

Due to its remarkable self-levelling properties, **Ultraplan EC25** immediately loses small imperfections (trowel marks, etc.).

When the second coat of **Ultraplan EC25** is required, it is recommended to apply it as soon as the first one is set to light foot traffic (approximately 3 hours at +23°C).

Ultraplan EC25 is ready to receive ceramic coverings and natural stone coverings, as long as stable and not sensitive to moisture, after approximately 3 hours. In the case of resilient and wood flooring, 12 hours are needed (the time can vary, depending on the room temperature and humidity).

CLEANING

While still wet, **Ultraplan EC25** can be removed from tools with water.

CONSUMPTION

1.6 kg/m² per mm of thickness.

PACKAGING

Ultraplan EC25 is available in 23 kg bags.

STORAGE

Ultraplan EC25 stored in a dry place is stable for at least 12 months. A long storage period may extend the setting time of **Ultraplan EC25**, but it does not affect its final performance.

SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

Instructions for the safe use of our products can be found on the latest version of the SDS available on our website www.mapei.com.

PRODUCT FOR PROFESSIONAL USE.

TECHNICAL DATA (typical values)

In compliance with the following standards: – European EN 13813 CT-C25-F7-A2_{FL}-S1

PRODUCT IDENTITY

Consistency:

fine powder

Colour:

grey

Bulk density:

1300 kg/m³

EMICODE:

EC1 Plus – very low emission

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

Mixing ratio:	24-25 parts of water per 100 parts by weight of Ultraplan EC25
Thickness per coat:	from 1 to 10 mm
Self-levelling:	yes
Density of mix:	2000 kg/m ³
pH of mix:	approx. 12
Application temperature:	from +5°C to +35°C
Pot life:	20-30 min
Setting time:	45-60 min
Set to light foot traffic:	min. 3 h
Waiting time before bonding:	min. 3 h
- ceramics:	
- resilient and wood flooring:	min. 12 h

FINAL PERFORMANCE

Compressive strength:	
after 1 day:	12 N/mm ²
after 3 days:	17 N/mm ²
after 7 days:	20 N/mm ²
after 28 days:	26 N/mm ²
Flexural strength:	
after 1 day:	3 N/mm ²
after 3 days:	4 N/mm ²
after 7 days:	5 N/mm ²
after 28 days:	7 N/mm ²
Abrasion resistance - Taber abrader (H 22 disk - 500 g - 200 revs), expressed as loss of weight:	
after 7 days:	2.8 g

after 28 days:

2.3 g

Brinell hardness:

after 1 day:

55 N/mm²

after 3 days:

70 N/mm²

after 7 days:

80 N/mm²

after 28 days:

100 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.

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 force at the time of the MAPEI product installation. The most up-to-date TDS can be downloaded from our website www.mapei.com.

ANY ALTERATION TO THE WORDING OR REQUIREMENTS CONTAINED OR DERIVED FROM THIS TDS EXCLUDES THE RESPONSIBILITY OF MAPEI.

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