



Ultraplan Eco

Self-levelling, ultra quick-hardening smoothing compound for thicknesses from 1 to 10 mm, with very low emission level of volatile organic compounds (VOC)



CLASSIFICATION ACCORDING TO EN 13813

The smoothing compounds prepared with **Ultraplan Eco** in compliance with the prescriptions present in this technical data sheet are classified as CT-C25-F7-A2_{fl} according to European Norm 13813.

WHERE TO USE

Ultraplan Eco is used for levelling and removing differences in thickness from 1 to 10 mm on new or existing substrates, preparing them to receive any kind of flooring where an excellent resistance to loads and traffic is needed.

Ultraplan Eco is particularly suitable for areas subject to wheeled chairs.

Ultraplan Eco 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 underfloor heating systems incorporated.
- Levelling existing cement, terrazzo, ceramic and natural stone floors.

TECHNICAL CHARACTERISTICS

Ultraplan Eco is a grey powder consisting of special cements with fast setting and hydration together with graded silica sand, resins and special admixtures, according to a formula developed in the MAPEI Research Laboratories.

Mixed with water **Ultraplan Eco** becomes a highly fluid and easily workable mortar, perfectly self-levelling with high adhesion to the substrate that dries ultra-quickly.

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

Ultraplan Eco 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 Eco is ready to receive flooring after approximately 12 hours, regardless of the thickness. It is recommended to wait 24 hours when installing wooden flooring.

Ultraplan Eco has very low emissions of volatile organic compounds (EMICODE EC1 R Plus) and is harmless to the health of the installer and the end-user in the areas where applied.

RECOMMENDATIONS

- Do not add water to a mix which has started to set.
- Do not add lime, cement or gypsum to the mix.
- Do not use **Ultraplan Eco** for exterior applications.
- If a coat of **Ultraplan Eco** needs to be applied once the preceding one is completely dry, first apply **Eco Prim T** or **Primer G**.
- Do not apply **Ultraplan Eco** at temperatures below +5°C.
- Do not apply **Ultraplan Eco** in thicknesses less than 3 mm when wooden flooring needs to be installed.

Ultraplan Eco



Mixing Ultraplan Eco -
Mirabello kindergarten
- Cantù (Como) - Italy



Polishing with
helicopter before
applying Ultraplan Eco
- Mirabello kindergarten
- Cantù (Como) - Italy



Linoleum applied on
screed previously
levelled with Ultraplan
Eco - Mirabello
kindergarten - Cantù
(Como) - Italy

TECHNICAL DATA (typical values)

EN 13813 CT-C25-F7-A2_{II}

PRODUCT IDENTITY

Consistency:	fine powder
Colour:	grey
Bulk density (kg/m ³):	1300
Dry solids content (%):	100
EMICODE:	EC1 R 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 Eco
Thickness per coat:	from 1 to 10 mm (minimum of 3 mm before the installation of wooden floors)
Self-levelling:	yes
Density of mix (kg/m ³):	2000
pH of mix:	approx. 12
Application temperature range:	from +5°C to +35°C
Open time:	20-30 minutes
Setting time:	45-60 minutes
Set to light foot traffic:	3 hours
Time before laying flooring:	12 hours (24 hours for wooden floors)

FINAL PERFORMANCE DATA

Compressive strength (N/mm ²):	
– after 1 day:	12.0
– after 3 days:	17.0
– after 7 days:	20.0
– after 28 days:	26.0
Flexural strength (N/mm ²):	
– after 1 day:	3.0
– after 3 days:	4.0
– after 7 days:	5.0
– after 28 days:	7.0
Resistance to abrasion Taber Abrasimer (Abrading wheel H22 - 500 g - 200 revolutions) expressed as weight loss (g):	
– after 7 days:	2.8
– after 28 days:	2.3
Brinell hardness (N/mm ²):	
– after 1 day:	55
– after 3 days:	70
– after 7 days:	80
– after 28 days:	100

APPLICATION PROCEDURE

Preparing the substrate

Substrates must be completely dry, sound, free from dust, loose parts, paint, wax, oil, rust and traces of gypsum.

Cement based surfaces not sufficiently sound must be removed or, where possible, reinforced with **Eco Prim PU 1K**, **Prosfas** or **Primer 3296**.

Fissures in concrete substrates must be repaired with **Eporip** or **Eporip Turbo**.

Dusty or very porous concrete surfaces must be treated with a coat of **Eco Prim T**, diluted with water 1:1, or **Primer G**, diluted with water 1:3 (both primers have very low emission of volatile organic compounds - EMI CODE EC1 R Plus) in order to even out the absorbency of the substrate.

Anhydrite screeds can be levelled with **Ultraplan Eco** only after the application of a coat of **Eco Prim T** or **Primer G** diluted with water 1:1.

First apply a coat of undiluted **Eco Prim T** on ceramic or natural stone surfaces after the surface has been cleaned with detergents and mechanically abraded.

Preparing the mix

Pour a 20 kg bag of **Ultraplan Eco** into a bucket containing approximately 4.8-5.0 litres of clean water and mix with a low speed electric mixer to obtain an homogeneous lump-free mix.

Larger quantities can be prepared in on-site cement mixers.

After 2-3 minutes of slackening, re-stir the mix. The mix is then ready to be used.

It is recommended to add approximately 20-30% of 0/4 or 0/8 grain sand when **Ultraplan Eco** is used for thicknesses more than 10 mm (max. 20 mm). For further information consult MAPEI Technical Services Department.

The quantity of **Ultraplan Eco** mixed at any time must be used within 20-30 minutes (at +23°C).

Spreading the mix

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

Ultraplan Eco can also be applied with an automatic pressure pump for renders. Due to its remarkable self-levelling properties **Ultraplan Eco** immediately loses small imperfections (trowel marks, etc.).

When a second coat of **Ultraplan Eco** 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 Eco is suitable to receive resilient, carpet, and ceramic floor coverings fixed after 12 hours at +23°C (the time can vary, depending on the room temperature and humidity). When installing wood flooring, wait 24 hours.

Check the humidity content with a carbide hygrometer or an electric moisture meter, keeping in mind that the latter only gives indicative values.

Cleaning

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

CONSUMPTION

1.6 kg/m² per mm of thickness.

PACKAGING

Ultraplan Eco is available in 20 kg bags.

STORAGE

Ultraplan Eco stored in a dry place is stable for at least 12 months. However, with time it could undergo a slower setting time but the final characteristics do not alter.

SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

Ultraplan Eco contains cement that when in contact with sweat or other body fluids causes irritant alkaline reactions and allergic reactions to those predisposed. During use, wear protective gloves and goggles and to take the usual precautions for handling chemicals.

If the product comes in contact with the eyes or skin, wash immediately with plenty of water and seek medical attention.

Keep out of reach of children. Ensure good ventilation during and after application and drying. Avoid eating, drinking or smoking while processing this product. In case of contact with eyes or skin rinse immediately with plenty of water. Do not allow product to reach sewage system or any water course. Do not allow to penetrate the ground/soil. Clean tools with soap and water immediately after use. Only properly emptied containers may be recycled. Dried product residues can be disposed of as normal household waste.

Product contains: MIT / BIT and CIT/MIT For information for allergic people, please call at +27 11 552 8476

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

PRODUCT FOR PROFESSIONAL USE.



Carpet laid on a hotel corridor after levelling with **Ultraplan Eco** - Hotel Renaissance - Austria



This symbol is used to identify Mapei products which give off a low level of volatile organic compounds (VOC) as certified by GEV (Gemeinschaft Emissionskontrollierte Verlegewerkstoffe, Klebstoffe und Bauprodukte e.V.), an international organisation for controlling the level of emissions from products used for floors.



"Der Blaue Engel" is a German mark of ecological quality used to identify products which respect the environment, contractors and end users. MAPEI products carrying this logo have been tested according to strict criteria defined by the German standard RAL-UZ 113 and, because they are all solvent-free with very low emission of volatile organic compounds, also offer advantages for the environment and public wellbeing.



Our Commitment To The Environment
MAPEI products assist Project Designers and Contractors create innovative LEED (The Leadership in Energy and Environmental Design) certified projects, in compliance with the U.S. Green Building Council.



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 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.

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