

ULTRAPLAN ECO

Ultra-fast hardening self-levelling compound with very low VOC's (volatile organic compounds)



CLASSIFICATION ACCORDING TO EN 13813

The material properties of Ultraplan Eco comply with the norms referred to in this technical data sheet and are classified as CT-C30-F7-A2fl according to EN 13813.

WHERE TO USE

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

Ultraplan Eco is particularly suitable for areas subjected 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 rapid setting and hydrating cements, blended with graded silica sand, resins and special additives, according to a formula developed in the MAPEI research laboratories. When mixed with water **Ultraplan Eco** becomes a fluid, easy to work mix that has excellent self-levelling properties and cures rapidly.

Ultraplan Eco is easily applied with a pump.

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. |

It is recommended to wait 24 hours when installing timber flooring. **Ultraplan Eco** has very low emissions of volatile organic compounds and is harmless to the health of the installer and the end-user in the areas where applied.

Ultraplan Eco can contribute valuable points towards Green Star™ credits

RECOMMENDATIONS

- Do not add water to a mix which has already started to set.
- Do not add lime, cement or gypsum to the mix.
- Do not use **Ultraplan Eco** for exterior applications.
- Do not use **Ultraplan Eco** on substrates subject to continuous rising damp.
- If a coat of **Ultraplan Eco** needs to be applied once the preceding one is completely dry, first apply **Eco Prim T Plus** diluted 1:2 with water.
- Do not apply **Ultraplan Eco** at temperatures below +5°C.
- Do not apply **Ultraplan Eco** in thicknesses less than 3 mm when timber flooring is installed.

APPLICATION PROCEDURE

Preparing the substrate

Substrates must be dry, solid and free of dirt, loose materials, paint, wax, oils, rust, traces of gypsum, curing and sealing compounds and all other materials which may interfere with bonding. All curing and sealing compounds, irrespective of the type (including dissipating curing compounds) must be completely mechanically removed. A minimum concrete surface profile (CSP) of CSP #3 is required.

If a moisture vapour barrier is required, please contact MAPEI Technical Assistance Department for further details. Cement based substrates which are not sufficiently solid must be removed or wherever possible consolidated with

Profas, Primer EP or Primer MF.

Cracks or crazing in cement substrates must be repaired with **Eporip.**

Porous substrates and anhydrite screeds must be treated with a primer such as **Eco Prim T Plus** (diluted 1 part primer mixed with 2 parts water) to prevent potential debonding and to make the substrate uniformly absorbent. Non-porous substrates (such as ceramic tiles and natural stone) must be carefully cleaned to eliminate traces of wax and then treated with a primer such as **Eco Prim T Plus** (undiluted) or **Eco Prim Grip.**

Magnesite substrates must be primed with **Mapeprim SP.** For all other forms of substrates and for further Surface Preparation information, please refer to **MAPEI's Surface Preparation Requirements brochure – Floor Covering**

Installation System available on our website at www.mapei.com.au or alternatively email technical-au@mapei.com.au and request a copy.

Preparing the mix

Pour a 20 kg bag of **Ultraplan Eco** into a bucket containing 4.6-4.8 litres of clean water and mix with a low speed electric mixer to obtain an homogeneous lump-free mix.

For optimum results MAPEI recommends the use of warm water (+18°C to +29°C) as opposed to cold water for mixing – particularly during the colder months.

Successful installation often also requires the levelling compound to be acclimatised to help offset the effects of a cooler substrate and jobsite ambient temperature conditions.

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

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

It is recommended to add approximately 40% of 0/4 or 0/8 grain aggregate when **Ultraplan Eco** is used for thicknesses more than 10 mm. For further information consult MAPEI's 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 while 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 and ceramic floor coverings after 12 hours at +23°C (the time can vary, depending on the room temperature and humidity). When installing timber flooring, wait 24 hours.

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, elevated area 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 may cause an irritant alkaline reaction and allergic reactions to those predisposed. It may cause damage to the eyes. When using the product, wear protective gloves and goggles and take the usual precautions for handling chemical products. If the product comes into contact with the eyes or skin, wash immediately with plenty of clean water and seek medical attention. For further and

complete information about the safe use of our product, please refer to the latest version of our Safety Data Sheet available from our website at www.mapei.com.au

PRODUCT FOR PROFESSIONAL USE.



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



Solid Timber Flooring installed over Ultraplan Eco in a Pumpkin Patch store in Sydney, Australia

TECHNICAL DATA (typical values)	
In compliance with:	
- EN 13813 CT-C30-F7-A2fl In compliance with:	
- GREEN STAR™ - Ultraplan Eco can contribute valuable points towards Green Star™ credits due to the very low VOC content of this product. Refer SDS Section 9 for further details	
PRODUCT IDENTITY	
Consistency:	fine powder
Colour:	grey
Bulk density (kg/m ³):	1,300
Dry solids content (%):	100
Green Star™:	very low emission
APPLICATION DATA (at +23°C - 50% R.H.)	
Mixing ratio:	4.6 - 4.8 litres of clean water per 20 kg bag of Ultraplan Eco
Thickness per coat:	from 1 to 10 mm (minimum of 3 mm before the installation of timber floors)
Self-levelling:	yes
Density of mix (kg/m ³):	2,000
pH of mix:	approx. 12
Application temperature range:	from +5°C to +35°C
Open time:	20 minutes
Setting time:	50-70 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:	30.0
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 H22-500g - 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

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.au

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.au

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

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