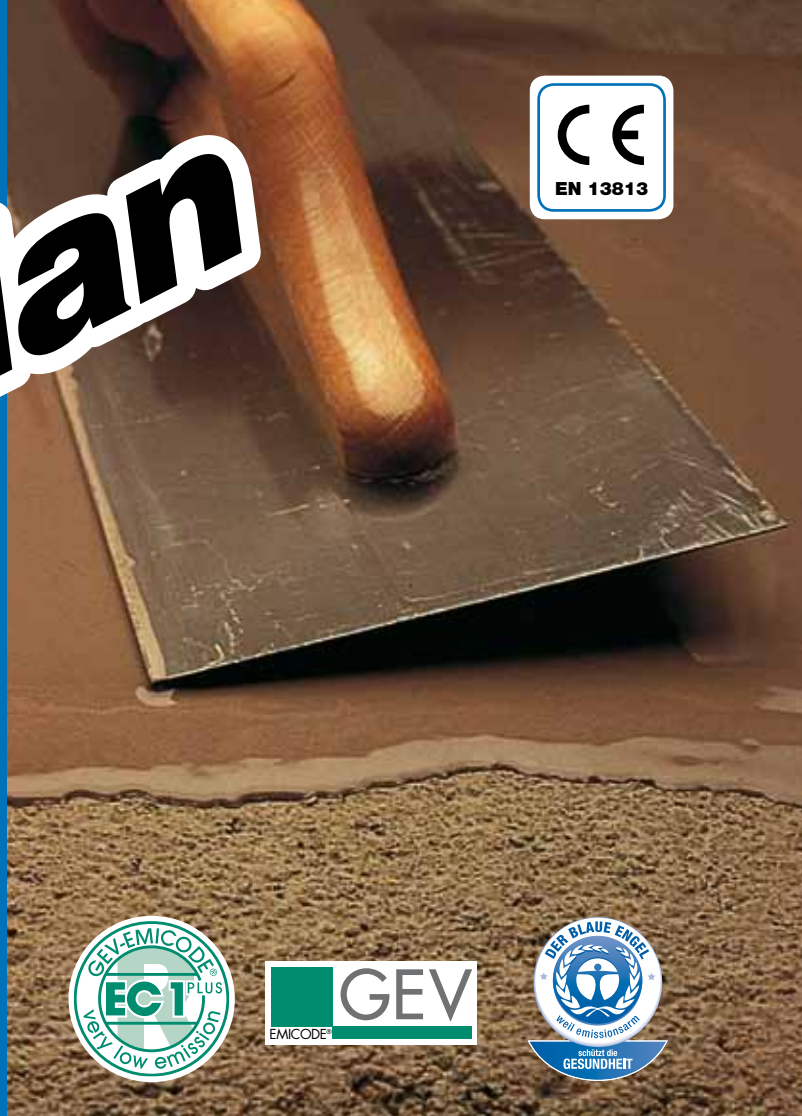




Ultraplan

**Ultra-fast drying
self-levelling compound**



CLASSIFICATION ACCORDING TO EN 13813

Ultraplan smoothing compound as described in this data sheet is classified as CT-C30-F7-A2_{fl}-s1 according to European Norm EN 13813.

WHERE TO USE

Ultraplan is used in interiors 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 a high resistance to loads and traffic is required.

Ultraplan is especially suitable for areas subject to wheeled chairs.

Ultraplan is for interior use only.

Some application examples

- Levelling concrete slabs and cementitious screeds or **Topcem**, **Mapecem**, **Mapecem Pronto** or **Topcem Pronto** based screeds.
- Levelling anhydrite substrates.
- Levelling over underfloor heating systems.
- Levelling existing concrete substrates, terrazzo, ceramic, natural stone and magnesite.

TECHNICAL CHARACTERISTICS

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

Mixed with water, **Ultraplan** becomes a fluid and easily workable mortar, perfectly self-levelling, with high bonding strength to the substrate and ultra-fast drying. **Ultraplan** can be applied with an automatic pressure pump for distances over 100 m.

Ultraplan 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. For thicknesses greater than 10 mm (max. 20 mm), it is recommended to add approx. 30% of graded sand 0/4 mm or gravel 0/8 mm. Installation of flooring can begin approx. 12 hours after the application of **Ultraplan**, regardless of thickness.

RECOMMENDATIONS

- Do not add more water to a mix which has already begun to set.
- Do not add lime, cement or gypsum to the mix.
- Do not use **Ultraplan** for exterior levelling works.
- Do not use **Ultraplan** on substrates subject to continuous rising damp.
- Do not apply an additional coat of **Ultraplan** when the previous one is completely dry; in this case first apply **Primer G** diluted with 1:3 of water by volume.
- Do not use **Ultraplan** on metal surfaces.
- Do not use **Ultraplan** when the temperature is below +5°C.

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- Do not apply **Ultraplan** in thicknesses less than 3 mm if wood is to be overlaid.

APPLICATION PROCEDURE

Preparing the substrate

The substrates must be solid, dry, free of dust, loose parts, paint, wax, oils, rust and traces of gypsum.

Cement based surfaces that are not sufficiently solid must be removed or where possible consolidated with **Prosfas**, **Primer EP** or **Primer MF**.

Cracks must be repaired with **Eporip**.

Dusty or very porous concrete surfaces must be treated with a coat of **Primer G** (1 part **Primer G** with 3 parts of water) or **Livigum** (1 part **Livigum** with 5 parts water).

Anhydrite screeds can only be levelled with **Ultraplan** after a coat of **Primer G**, **Primer S**, **Eco Prim T** or **Primer EP** has been applied.

On ceramic or natural stones apply a coat of **Mapeprim SP** after the surfaces have been cleaned with detergents and mechanically abraded. Level with **Ultraplan** before

Mapeprim SP has dried completely (indents must still be possible to make).

Preparing the mix

Pour a 23 kg bag of **Ultraplan** into a bucket containing 5.5-6 litres of clean water and mix with a low speed electric mixer to obtain a homogeneous, self-levelling lump free mix. More quantities of **Ultraplan** can be prepared in mortar mixers.

After 2-3 minutes of slackening, the mix should be restirred and is then ready for use. When **Ultraplan** is to be used in thicknesses greater than 10 mm (max. 20 mm), it is recommended to add approx. 40% graded sand 0/4 mm or 0/8 mm depending on the thicknesses (refer to MAPEI Technical Services Department).

The quantity of **Ultraplan** mixed must be

used within 20-30 minutes (at a temperature of +23°C).

Applying the mix

Apply **Ultraplan** in a single coat from 1 to 10 mm thick with a large metal trowel or a spiked roller, keeping the trowel slightly inclined to obtain the desired thickness.

Ultraplan can also be applied with an automatic pressure pump.

Due to its remarkable self-levelling characteristic, **Ultraplan** immediately eliminates small imperfections (trowel marks, etc.).

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

The levelling coat of **Ultraplan** will be ready to receive resilients, carpet, ceramic and wood floor coverings fixed with adhesives after 12 hours at +23°C (time can vary depending on the thickness of the levelling, the room temperature and humidity).

For installing wood on concrete substrates, the levelling coat of **Ultraplan** must absolutely be at least 3 mm thick. Carefully check the humidity content with a carbide hygrometer or an electric moisture meter, keeping in mind that the latter only gives indicative values.

Cleaning

When fresh, **Ultraplan** can be removed from tools and hands with water.

CONSUMPTION

1.6 kg/m² per mm of thickness.

PACKAGING

Ultraplan is available in 23 kg bags.

STORAGE

Ultraplan is stable for 12 months stored in a dry place.



Application of **Ultraplan** with pump and squeegee



Application of **Ultraplan** with a metal trowel on an existing ceramic tile floor after the application of **Mapeprim SP**



Detail of the application of **Ultraplan** on an existing ceramic tile floor after the application of **Mapeprim SP**



TECHNICAL DATA (typical values)

In compliance with:

- EN 13813 CT-C30-F7-A2_n-s1
- French norms: superior quality levelling compound (P₃) according to UPEC classification

PRODUCT IDENTITY

Consistency:	fine powder
Colour:	pinkish-grey
Bulk density (kg/m ³):	1,300
Dry solids content (%):	100
EMICODE:	EC1 R Plus - very low emission

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

Mixing ratio:	25-26 parts water per 100 parts by weight of Ultraplan
Thickness per coat:	from 1 to 10 mm
Self-levelling:	yes
Density of the mix (kg/m ³):	1,900
pH of mix:	approx. 12
Application temperature range:	from +5°C to +35°C
Pot life:	20-30 minutes
Setting time:	45-60 minutes
Set to light foot traffic:	3 hours
Waiting time before subsequent bonding:	12 hours

FINAL PERFORMANCE DATA

Compressive strength (N/mm ²):	
- after 1 day:	15.0
- after 3 days:	19.0
- after 7 days:	22.0
- after 28 days:	30.0
Flexural strength (N/mm ²):	
- after 1 day:	3.5
- after 3 days:	5.5
- after 7 days:	6.0
- after 28 days:	8.0
Resistance to abrasion TABER Abrasimer (Abrading wheel H22-550 g-200 revolutions) expressed as weight loss (g):	
- after 7 days:	1 g
- after 28 days:	0.7 g
Brinell hardness:	
- after 1 day:	60
- after 3 days:	80
- after 7 days:	85
- after 28 days:	110



Taber abrasion executed on Ultraplan (right specimen) and on conventional levelling (left specimen) after 200 cycles



An example of an installation of inlaid PVC on a surface levelled with Ultraplan - CD2 - Milan - Italy



Slab levelled with Ultraplan ready for fixing a floating floor

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A longer storage could, determine a slower setting time of **Ultraplan**. However, the performances of the levelling layer at long ages are not significantly modified. The product complies with the conditions of Annex XVII to Regulation (EC) N° 1907/2006 (REACH) - All. XVII, item 47.

SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

Ultraplan 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. 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



This symbol is used to identify Mapei products which give off a low level of volatile organic compounds (VOC) as certified by GEV (Gesellschaft 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.

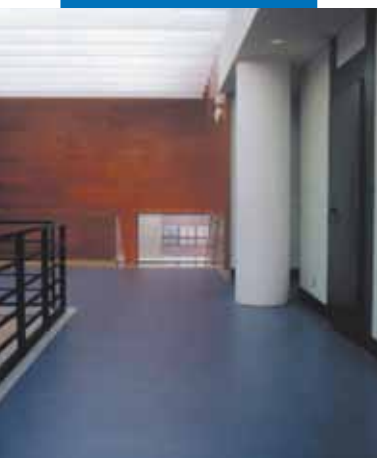


Our Commitment To The Environment
MAPEI products assist Project Designers and Contractors create innovative LEED (The Leadership in Energy and Environmental Design) certified projects, in compliance with the U.S. Green Building Council.

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



An example of an installation of wood on a surface levelled with Ultraplan - Messagerie Musicali - Rome - Italy



An example of an installation of linoleum on a surface levelled with Ultraplan - Monzón Conservatory - Spain



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