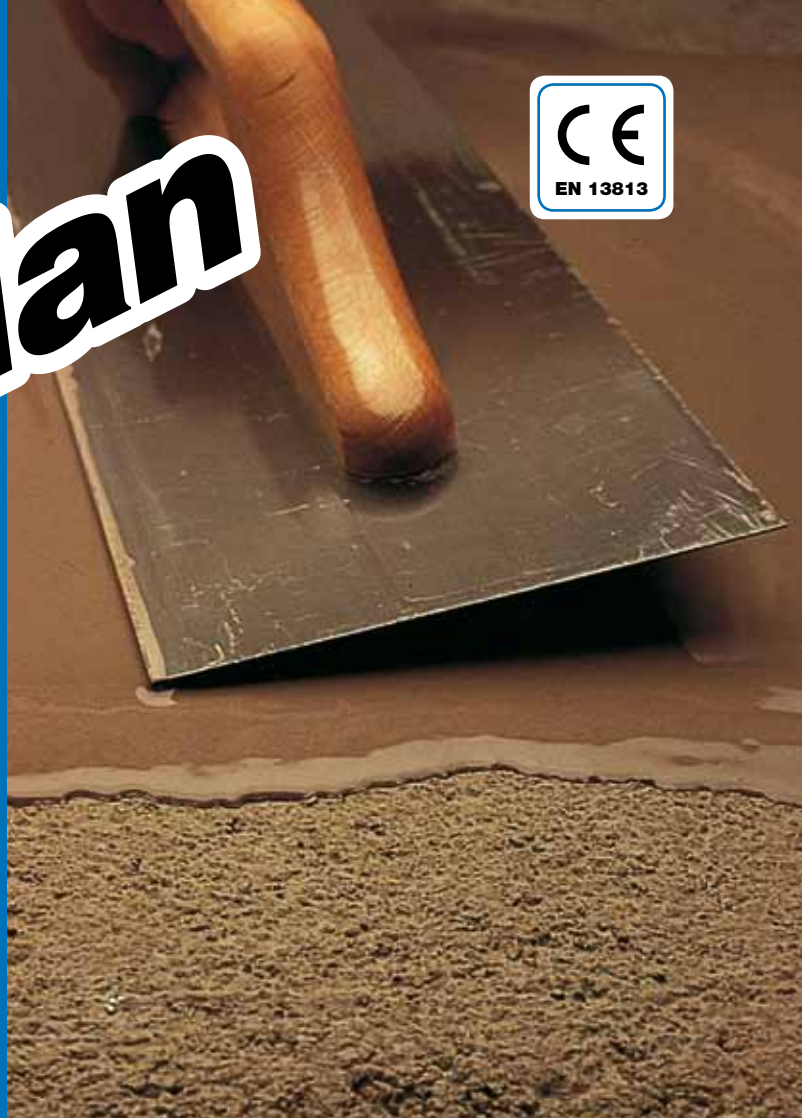




Ultraplan



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



CLASSIFICATION ACCORDING TO EN 13813

The material properties of **Ultraplan** comply with the norms referred to in this technical data sheet and are classified as CT-C30-F7-A2_{fl}-s1 according to EN 13813.

WHERE TO USE

Ultraplan is used for levelling and smoothing differences in thicknesses from 1 to 15 mm on new or existing substrates, preparing them to receive any type 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**, **Topcem Pronto** based screeds.
- Levelling anhydrite substrates.
- Levelling underfloor heating systems.
- Substrate preparation under quality epoxy coatings (ie. **Mapecfloor I 300**).
- Levelling existing concrete pavements, terrazzo, ceramic, natural stone and magnesite floors.

TECHNICAL CHARACTERISTICS

Ultraplan 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 laboratory.

Mixed with water, **Ultraplan** becomes a fluid and easily workable mortar, perfectly self-levelling, with a high bond strength and ultra-fast drying.

Ultraplan can be applied using an automatic pressure pump.

Ultraplan can be spread in thicknesses up to 15 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 15 mm, it is recommended to add up to 50% of graded aggregate from 2-5 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** if the previous layer has completely dried without first applying a coat of **Primer G** diluted 1:3 with water.

Ultraplan

- Do not use **Ultraplan** on metal surfaces.
- Do not use **Ultraplan** when the temperature is below +5°C.
- Do not apply **Ultraplan** in thicknesses less than 3 mm if timber is to be installed.

APPLICATION PROCEDURE

Preparing the substrate

The substrate must be solid, dry, free of dust, loose particles, 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** using a mixing ratio with clean water of 1:1, 1:2 or 1:3 depending on the absorption rate of the substrate. Please contact your MAPEI representative if further clarification is required.

Do not apply **Primer G** in such a quantity that it forms a surface film. Always dilute with water according to the absorption of the substrate. If the absorption rate cannot be established use **Mapeprim SP** as the bonding agent over a clean substrate.

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

When levelling over ceramic tiles or natural stone, first apply a coat of **Mapeprim SP** only after the surfaces have been cleaned with detergents and mechanically abraded. Level with **Ultraplan** before the **Mapeprim SP** has completely dried (minimum of 3 hours

to a maximum of 24 hours - impressionable indentations in the primer must still be possible prior to applying **Ultraplan**).

Preparing the mix

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

Larger 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 15 mm, it is recommended to add up to 50% aggregate (2-5 mm). Please consult MAPEI Technical Services for further clarification.

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 15 mm thick with a large metal trowel or a squeegee, 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



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



TECHNICAL DATA (typical values)

In compliance with:

- EN 13813 - CT-C30-F7-A2_{fl}-s1
- GREEN STAR™ - Ultraplan can contribute valuable points towards Green Star™ projects due to the very low VOC content of this product. Refer MSDS Section 9 for further details

PRODUCT IDENTITY

Consistency:	fine powder
Colour:	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:	23-24% litres of clean water per 20 kg bag of Ultraplan
Thickness per coat:	from 1 to 15 mm
Self-levelling:	yes
Density of the mix (kg/m ³):	2,000
pH of mix:	approx. 12
Application temperature range:	from +5°C to +35°C
Pot life:	20-30 minutes
Setting time:	50-70 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:	18
– after 3 days:	22
– after 7 days:	25
– after 28 days:	33
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
– after 28 days:	0.7
Brinell hardness:	
– after 1 day:	60
– after 3 days:	80
– after 7 days:	85
– after 28 days:	110



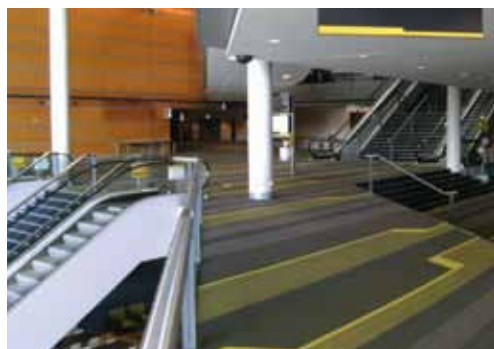
Taber abrasion executed on Ultraplan (right specimen) and on conventional levelling (left specimen) after 200 cycles



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



Slab levelled with Ultraplan ready for fixing a floating floor



Brisbane Convention Centre - Carpet installed at the Brisbane Convention Centre after the concrete was levelled with Ultraplan



Geelong Hospital - Vinyl installed at the Geelong Hospital Emergency Department after the concrete was levelled with Ultraplan

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).

When installing timber over a concrete substrate, the levelling coat of **Ultraplan** must be no less than 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 20 kg bags.

STORAGE

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

A longer storage (over 12 months) could determine a slower setting time of **Ultraplan**, however the final characteristics of the product do not alter.

SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

Ultraplan contains cement that could produce an irritant alkaline reaction if it comes into contact with sweat or other bodily fluids. Use protective gloves and goggles. For further and complete information about the safe use of our product please refer to our latest version of the Material Safety Data Sheet, which is available upon request, or can be downloaded from www.mapei.com.au

PRODUCT FOR PROFESSIONAL USE.

WARNING

Although the technical details and recommendations contained in this product report 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 applications: 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.



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.

In compliance with LEED for the VOC Level

* **Green Star™** is a trademark of the Green Building Council of Australia.

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

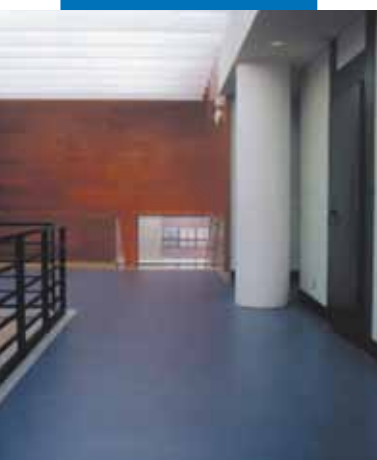
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BUILDING THE FUTURE

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