



Ultraplan



**Ultra-fast drying
self-levelling compound
from 1 to 10 mm**



www.blauer-engel.de/uz113



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% by weight of 0.4-0.8 mm quartz.

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, before applying any further levelling compound layers, first prime the surface with **Primer G** diluted with 1:3 of water by volume.
- Do not use **Ultraplan** on metal surfaces.

Ultraplan

- Do not use **Ultraplan** when the temperature is below +5°C.
- Do not apply **Ultraplan** in thicknesses less than 3 mm if wood is to be overlaid.

APPLICATION PROCEDURE

Preparing the substrate

Substrates must comply with the specifications contained in the applicable standards for each country.

Substrates must be sound and free of all traces of dust, loose or detached parts, varnish, wax, oil, rust and gypsum.

Cementitious-based surfaces that are not sufficiently sound must be removed or, where possible, consolidated with a suitable MAPEI system (such as **Profas**, **Eco Prim PU 1K** or **Primer MF**).

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

Treat dusty or particularly porous concrete surfaces with a suitable primer such as

Primer G (1 part of **Primer G** with 1-2 part of water by volume) or **Eco Prim T Plus** (1 part of **Eco Prim T Plus** with 3 parts of water by volume) to hold the dust and even out the absorbency of the substrate.

Anhydrite screeds may only be levelled off with **Ultraplan** after sanding the surface and applying a suitable primer (such as **Primer G** or **Eco Prim T Plus** applied neat or diluted 1:1 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. Wooden substrates must be clean and solidly fixed; any paints, oil or waxes must be removed and open joints have to be sealed with **Planipatch** or **Planipatch Fast Track** mixed with **Latex Plus** prior to the application of **Ultraplan**.

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 an homogeneous, self-levelling lump free mix.

A greater quantity 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. 30% by weight of 0.4-0.8 mm quartz depending on the thicknesses (refer to MAPEI Technical Services Department).

The amount of **Ultraplan** mixed at any time 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 squeegee, keeping the tool slightly inclined to obtain the desired thickness.

Ultraplan can also be applied with an automatic pressure pump.

Due to its remarkable self-levelling properties, **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 resilient, 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 moisture content with a carbide hygrometer or an electric moisture meter,



Application of **Ultraplan** with pump and squeegee



Application of **Ultraplan** with a metal trowel on an existing ceramic tile floor after the application of **Eco Prim T Plus**



Detail of the application of **Ultraplan** on an existing ceramic tile floor after the application of **Eco Prim T Plus**



TECHNICAL DATA (typical values)

In compliance with:

– EN 13813 CT-C30-F7-A2_{FL}-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 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
– 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 inlaid PVC on a surface levelled with Ultraplan - CD 2 - Milan - Italy



Slab levelled with Ultraplan ready for fixing a floating floor

Ultraplan



An example of an installation of wood on a surface levelled with Ultraplan - Gaggenau Flagship Showroom & Restaurant @ Chengdu - Cina



An example of an installation of linoleum on a surface levelled with Ultraplan - Victorian Comprehensive Cancer Centre - Melbourne - Australia

keeping in mind that the latter only gives indicative values.

Cleaning

When fresh, **Ultraplan** can be removed from tools 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.

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) - 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 Safety Data Sheet.

Keep out of the reach of children. Ensure good ventilation during and after use and drying. Do not eat, drink or smoke when using this product. In case of contact with skin or eyes, rinse immediately with plenty of water. Do not allow product to reach sewage system, water course or soil. Clean tools with soap and water immediately after use. Give only empty containers to recycling. Dried product residues may be disposed of as domestic waste. Product preservative-free; For information for allergic people or the technical data sheet, please call:

+39/02/37673.1. Always wear safety glasses. If adhesive or installation material gets into contact with your eyes rinse immediately with plenty of water and see an ophthalmologist. Always wear heavy-duty waterproof gloves to protect your hands. Always wear long trousers. Avoid prolonged skin contact with

the adhesive or installation material. Rinse affected areas immediately with plenty of water. The longer fresh adhesive or installation material remains on your skin the greater the risk of severe skin damage.

The product contains:

Binders, Mineral fillers, pigment, additive (VdI-RL 01/June 2018).

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

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.



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.

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



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