ULTRAPLAN

Pumpable, fast-drying, self-levelling, smoothing compound for thicknesses from 1 to 10 mm per coat



BENEFITS AND FEATURES

- Application thickness from 1 to 10 mm per layer
- Suitable for hand- or pump application
- Excellent self-levelling properties
- Excellent surface finish
- Ready for tiling after 3 hours
- Ready for resilients and wood after 12 hours
- High bonding strength to the substrate
- High compressive and flexural strength
- Suitable for all kinds of floorings; resilients, textiles, floating parquet and laminate, ceramics and natural stone, and glued multilayer parquet
- EMICODE EC1 Plus (very low emissions)
- EPD-verified
- Residual Greenhouse Gas emissions fully offset

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.

CO_2e FULLY OFFSET PRODUCTS

Residual Greenhouse Gas emissions measured throughout the life cycle of this product using Life Cycle Assessment (LCA) methodology, verified and certified with EPDs, have been offset for the year 2026 through the acquisition of carbon credits in support of forestry protection projects. For more details on emission calculations and offsetting projects, visit mapei.com.

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 high resistance to loads and traffic, and fast floor covering are required.
Ultraplan is especially suitable for areas subject to wheeled chairs.
Ultraplan is for interior use only.
Ultraplan is suitable as an underlayment for most floor coverings in residential houses and apartments, offices,

institutions and commercial premises.
Ultraplan is suitable as an underlayment for floor coverings, carpets, tiles and natural stone, floating parquet and glued multilayer parquet.

Some application examples

- Levelling cementitious levelling compounds.
- Levelling concrete slabs and cementitious screeds or **Topcem**, **Mapecem**, **Mapecem Pronto** or **Topcem Pronto** based screeds.
- Levelling gypsum-based substrates.
- Levelling over underfloor heating systems.
- Levelling existing concrete substrates, terrazzo, ceramic, natural stone and magnesite.
- Levelling substrates of floor chipboards on sufficiently braced joists.

TECHNICAL CHARACTERISTICS

Ultraplan is a grey powder consisting of special binders with rapid setting and hydration, with selected graded sand, polymers and special admixtures prepared according to a formula developed in MAPEI's own R&D laboratories.
When mixed with water, **Ultraplan** becomes a fluid and easily workable self-levelling compound with high bonding strength to the substrate and ultra-fast drying.
Ultraplan can be applied with an automatic mixer pump or pump truck.
Ultraplan can be spread in thicknesses up to 10 mm per coat, and develops very high compressive and flexural strength as well as resistance to indentation and abrasion.
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, gypsum, or other binders to the mix.
- Do not use **Ultraplan** for exterior levelling works.
- Do not use **Ultraplan** on substrates subject to continuous capillary rising damp (contact MAPEI Technical Services Department).
- 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 a suitable primer such as **Primer E-10** (diluted 1:1 with water), **Primer G** (diluted 1:1 with water) or **Eco Prim T Plus** (diluted up to 1:4 with water). Wait at least 24 hours (at +23°C and 50 % RH) and make sure the surface is dry enough to absorb the primer.
- Do not use **Ultraplan** on metal surfaces.
- Do not use **Ultraplan** when the temperature is below +10°C.
- Do not apply **Ultraplan** in thicknesses less than 3 mm if wood is to be overlaid.
- Do not use **Ultraplan** on dusty or crumbling surfaces, or on surfaces with oil or grease stains.
- Do not use **Ultraplan** on textiles or on other deformable substrates such as asphalt (contact MAPEI Technical Services Department).
- Do not use **Ultraplan** as a final wearing top layer.
- **Ultraplan** must be covered with a suitable floor covering as soon as conditions permit. For drying-out requirements of substrates and **Ultraplan** before installation of floor covering, refer to current requirements according to local standard.
- The finished, hardened surface must be prepared according to the covering manufacturer's recommendations.
- Do not expose the surface to draughts or direct sunlight before, during and 1 to 3 days after application.
- Do not use dehumidifiers before, during and 3 days after application.
- Do not use gas heating before, during and after application.
- Temperature and relative humidity should always be measured and recorded in the laying protocol before application.

- The material in powder form should be stored in heated areas prior to application. Strongly cooled material carries the risk that certain additives will not be able to dissolve properly during mixing. Too high temperature in the material changes the flow properties, e.g. that the material gets a shorter processing time and sets too early.

APPLICATION PROCEDURE

Preparing the substrate

Substrates must comply with the specifications contained in the applicable local standards.
Substrates must be sound and have sufficient load-bearing capacity, be dry, clean, and free of all traces of dust, laitance, loose or detached parts, paints and varnishes, wax, grease, oil, rust, gypsum residues and all other pollutants that can reduce adhesion. Remains of old coverings and coatings, and other pollutants should be removed mechanically, if necessary, for example by shot blasting, milling, or grinding.
Cementitious-based surfaces that are not sufficiently sound must be removed or, where possible, consolidated with a suitable MAPEI system (such as **Eco Prim PU 1K**, **Primer MF EC Plus** or **Primer 3296**).
Finish off by thoroughly vacuuming the substrate. Surface tensile strength of the substrate must be at least 0.5 N/mm^2 (MPa).
Repair any cracks present in the substrate with **Mapepoxy BI-IMP** or a suitable injection product, and where required reinforce with **Rete 320**. Use height marks to determine the level that is required to achieve the prescribed floor tolerances for the finished floor according to local standard. Use dividers to divide the area of application into sections if needed.

Priming the substrate

Prime concrete and cementitious-based substrates with a suitable primer such as **Primer E-10** (diluted 1:1 with water), **Eco Prim T Plus** (diluted up to 1:4 with water), or **Primer G** (diluted 1:1 with water), see technical data sheet for more information, to hold the dust, to achieve sufficient adhesion and to equalize absorption in the substrate. The primer can be applied with a brush, roller, or spraying device. The primer should be brushed or rolled thoroughly into the substrate. When spraying, smooth out the primer with a brush.
Please note to avoid puddles from forming. Ensure the primer is dry before applying the levelling compound, always refer to the drying time reported in the technical data sheet.
Pores and pinholes are usually the result of insufficient, thin or over-diluted priming, low substrate temperature or a combination of all these. The primer should have dried sufficiently before application of **Ultraplan**.
If it takes more than 3 - 4 hours for the primer to dry, indicates that the drying conditions are not good enough for it to dry out correctly or that the substrate is not able to absorb the primer properly.
Gypsum-based screeds may only be leveled off with **Ultraplan** after sanding the surface and applying a suitable primer such as **Eco Prim T Plus** (diluted up to 1:2 with water) or **Primer G** (undiluted).
Prime existing ceramic and natural stone substrates with a coat of a suitable primer such as **Eco Prim T Plus** or **Eco Prim Grip Plus** after cleaning the surface with a suitable detergent and, if required, abrading the surface mechanically.
Alternatively prime with a suitable resin-based primer, such as **Mapeprimer M** or **Primer SN**, followed by a full broadcast of dry quartz sand **Sand 0.8 - 1.2 mm**. Remove excess quartz sand with vacuuming.
Wooden substrates must be clean and solidly fixed; any paints, oil or waxes must be removed, and open joints must be sealed with **Planipatch Xtra** mixed with **Latex Plus** prior to the application of **Ultraplan**.

Preparing the mix

Pour the content of a 20 kg bag of **Ultraplan** into a container with 4.8 - 5.2 liters of clean water (24 - 26 %) and continue mixing with a low-speed electric mixer for min. 2 - 3 minutes until a homogenous, flowable, lump-free mix is formed. Let it stand for 2 - 3 minutes and before applying, remix the blend for a few minutes more.
Ultraplan can also be mixed using a suitable automatic mixer pump or pump truck. Set the water content to 24 - 26 %. During mixing, check the water content by testing the flow ratio. If the water content is correct, the flow ratio should be 140 - 150 mm (acc. to EN 12706, flow ring 30 x 50 mm) or 160 - 170 mm (acc. to SS 923519, flow ring 50 x 22 mm).
While testing the flow ratio, also check that the mix is free of separation and completely homogenous before applying. Smoothen the mix within approx. 20 minutes (at approx. +23°C and 50 % RH).
The pot life of the mix varies according to the temperature and reduces as the temperature increases. Do not add more water than the amount required to achieve a good result. Too much water will cause separation and reduce the strength properties of the compound which again could lead to a weaker surface as well as higher shrinkage which increases the risk for cracks.

Applying the mix

Spread **Ultraplan** by hand or with a pump in a single layer of 1 to 10 mm, and whilst working smooth the surface with a wide toothed spatula or trowel, or spike roller to obtain a smooth finish, and to remove any foam in the surface layer and streaks from the hose.
Make sure that the material is cast in a regular, continuous flow without interruptions, to avoid defects in flatness. Adapt the width of the spread to the capacity of the mixer pump and layer thickness, normally as a rule of thumb no more than 8 - 10 meters without dividers. If there are high demands for flatness of the surface, the width should be as narrow as possible.
The levelling layer of **Ultraplan** will be ready to receive ceramics and natural stone after 3 hours, and resilients, carpet and multi-layer wood floor coverings fixed with adhesives after 12 hours at +23°C, 50 % RH and certain air exchange (time can vary depending on the thickness of the levelling layer, the ambient room temperature and humidity). Carefully check the moisture content of the levelling layer and that the entire floor construction below the levelling compound is sufficiently dry before applying adhesive and surface covering. Follow the guidelines in the local standard.
For moisture-sensitive surface covering such as wood follow the guidelines from the manufacturer.
For installing wooden flooring on concrete substrates, the levelling layer of **Ultraplan** must absolutely be at least 3 mm thick. Carefully check the moisture content with a carbide hygrometer or an electric moisture meter, keeping in mind that the latter only gives indicative values.

CLEANING

Remove **Ultraplan** from tools and equipment with water whilst still fresh. Hardened material must be removed mechanically.

CONSUMPTION

1.6 kg/m² per mm of thickness.
5 mm = 8 kg/m².
10 mm = 16 kg/m².

PACKAGING

Ultraplan is available in 20 kg bags, 1200 kg big-bag and bulk.

STORAGE

Ultraplan remains stable for 9 months if stored in its original packaging in a cool dry place.

SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

Instructions for the safe use of our products can be found on the latest version of the Safety Data Sheet, available from our website **www.mapei.no**

PRODUCT FOR PROFESSIONAL USE.

TECHNICAL DATA (typical values)

In compliance with: – EN 13813 CT-C30-F7-A2$_{FL}$-s1

PRODUCT IDENTITY	
Consistency:	fine powder
Colour:	grey
Bulk density:	1,300 kg/m^3
Dry solids content:	100 %
Grain size (D_{max}):	0.4 mm
EMICODE:	EC1 Plus - very low emission

APPLICATION DATA (at +23°C - 50 % R.H.)	
Layer thickness per layer:	from 1 to 10 mm
Recommended water amount:	4.8 - 5.2 liters per 20 kg bag of **Ultraplan** (24 - 26 %)
Density of the mix:	2,000 kg/m^3
pH-value of the mix:	approx. 12
Application temperature range:	from +10°C to +30°C
Pot life:	approx. 20 - 30 minutes
Setting time:	45 - 60 minutes
Set to light foot traffic:	approx. 3 hours
Waiting time before application of the covering: **– ceramic and natural stone tiles:** **– resilient and wood flooring:**	 min. 3 hours min. 12 hours
Flow ratio at 26 % water (EN12706 - ring 30x50 mm):	140 - 150 mm
Flow ratio at 26 % water (SS923519 - ring 50x22 mm):	160 - 170 mm

FINAL PERFORMANCES

Performance characteristics	Test method	Requirements according to EN 13813 for cementitious screeds	Typical values	
Compressive strength:	EN 13892-2	5 < N/mm² < 80 (after 28 days)	**+23°C**	
			24 hours	15.0 N/mm²
			7 days	22.0 N/mm²
			28 days	30.0 N/mm²
Flexural strength:	EN 13892-2	1 < N/mm² < 50 (after 28 days)	**+23°C**	
			24 hours	3.5 N/mm²
			7 days	6.0 N/mm²
			28 days	8.0 N/mm²

Surface tensile strength (pull-off):	GBR Trade Standard		28 days	> 1.5 N/mm^2 (MPa)
Adhesion to concrete:	EN 13892-8			> 0.5 N/mm^2 (MPa)
Density of hardened material:			**+23°C** 28 days	1800 kg/m^3
Shrinkage:	EN 13454-2 EN 13872	> 10 mm	**+23°C** 28 days	< 0.5 ‰ (mm/m)
Reaction to fire:	EN 13501-1	Value declared by producer	$A2_{FL}$-s1	
pH-value of hardened material:			approx. ≤ 9	
Resistance to abrasion TABER Abrasimeter (Abrading wheel H22-550 g-200 revolutions) expressed as weight loss:	NS-EN ISO 5470-1		7 days 28 days	1 g 0.7 g
Brinell hardness:			1 day 3 days 7 days 28 days	60 80 85 110

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 web site www.mapei.no

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 effect at the time of the MAPEI product installation. For the most up-to-date TDS and warranty information, please visit our website at www.mapei.no

ANY ALTERATIONS TO THE WORDING OR REQUIREMENTS CONTAINED IN OR DERIVED FROM THIS TDS SHALL VOID ALL RELATED MAPEI WARRANTIES.

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