



Ultraplan

Ultra-fast drying self-levelling compound



WHERE TO USE

Ultraplan is used 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 underfloor heating systems.
- Levelling existing concrete pavements, terrazzo, ceramic, natural stone and magnesite floors.

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 additives 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 about 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 a **Primer G** based primer diluted with 1:3 of water by volume.
- Do not use **Ultraplan** on metal surfaces.



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- Do not use **Ultraplan** when the temperature is below +5°C.
- Do not apply **Ultraplan** in thicknesses less than 2 mm if parquet 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** 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 an 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 about 40% graded sand 0/4 mm or 0/8 mm depending on the thicknesses (refer to Mapei Technical Assistance).

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 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 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 parquet on concrete substrates, the levelling coat of **Ultraplan** must absolutely be at least 3 mm thick. Carefully



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:

– French norms: superior quality levelling compound (P₃) according to UPEC classification

PRODUCT IDENTITY

Consistency:	fine powder
Colour:	pinkish-grey
Bulk density (kg/m³):	1300
Dry solids content (%):	100
Storage:	12 months in a dry place in original packing
Hazard classification according to EC 99/45:	none. Before using refer to the “Safety instructions for the preparation and application” paragraph and the information on the packing and Safety Data Sheet
Customs class:	3824 50 90

APPLICATION DATA at +23°C - 50% R.H.

Mixing ratio:	24-25 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/m³):	1900
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 PERFORMANCES

Compressive strength (N/mm²): – after 1 day: – after 3 days: – after 7 days: – after 28 days:	15.0 19.0 22.0 30.0
Flexural strength (N/mm²): – after 1 day: – after 3 days: – after 7 days: – after 28 days:	3.5 5.5 6.0 8.0
Resistance to abrasion Taber Abrasimeter (Abrading wheel H22-550 g - 200 revolutions) expressed as weight loss: – after 7 days: – after 28 days:	1 g 0.7 g
Brinell hardness (N/mm²): – after 1 day: – after 3 days: – after 7 days: – after 28 days:	60 80 85 110



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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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 at least 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.

SAFETY INSTRUCTIONS FOR THE PREPARATION AND APPLICATION

Contains cement, that in contact with sweat or other body fluids produces an irritant alkaline reaction. Use protective gloves and goggles. For further information consult the

safety data sheet, which is available upon request for professional users.

FOR PROFESSIONALS.

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.



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

All relevant references of the product are available upon request



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