

ULTRAPLAN MAXI

Ultra-fast hardening self-levelling smoothing
compound for thicknesses from 3 to 40 mm



CLASSIFICATION ACCORDING TO EN 13813

Floors levelled with **Ultraplan Maxi** in accordance with the specifications described in this technical data sheet are classified as CT-C35-F7-A2fl according to EN 13813.

WHERE TO USE

Ultraplan Maxi is used in interiors for levelling and smoothing differences in thicknesses from 3 to 40 mm on new or existing substrates, preparing them to receive all kinds of flooring where high resistance to loads and traffic is required. **Ultraplan Maxi** is especially suitable for areas subject to wheeled service loads such as chairs and trolleys and for use with underfloor heating/cooling systems. **Ultraplan Maxi** is for interior use only. Typical applications would include use in hospitals, hotels, theatres, schools, and shopping centres.

SOME APPLICATION EXAMPLES

- Levelling screeds prior to laying ceramic or natural stone tiles or resilient floors such as PVC, linoleum, rubber, cork, textile and non-woven flooring as well as wood flooring
- Levelling concrete slabs and cementitious screeds or **Mapecem**, **Mapecem Pronto**, **Topcem** or **Topcem Pronto** based screeds
- Levelling anhydrite substrates
- Levelling underfloor heating/cooling systems prior to laying subsequent finishes
- Levelling existing concrete pavements, terrazzo, ceramic, natural stone and magnesite floors

TECHNICAL CHARACTERISTICS

Ultraplan Maxi is a grey powder consisting of special cement with rapid setting and hydration together with selected graded silica sand, resins, and special additives, prepared according to a formula developed in the MAPEI Research Laboratories.

Mixed with water, **Ultraplan Maxi** becomes a highly fluid and easily workable mortar, with perfect self-levelling capacity, high adhesion to the substrate, and ultra-rapid drying.

Ultraplan Maxi can be applied with an automatic pressure pump at distances over 100 m.

Ultraplan Maxi can be spread in thicknesses up to 40 mm per coat without shrinkage, cracking or crazing, and develops very high compressive and flexural strength, as well as resistance to indentation and abrasion.

Ultraplan Maxi is ready to receive the flooring as soon as it has dried: the time required depends on the thickness of the levelling layer, the ambient temperature and relative humidity and on the absorption of the substrate.

RECOMMENDATIONS

- Do not add more water to a mix that has already begun to set
- Do not add lime, cement, or gypsum to the mix
- Do not use **Ultraplan Maxi** for exterior levelling works
- Do not use **Ultraplan Maxi** on substrates subject to continuous rising dampness
- Do not use it as an unbonded screed. **Ultraplan Maxi** must always be bonded onto a sound substrate
- Do not use **Ultraplan Maxi** on metal surfaces
- Do not apply **Ultraplan Maxi** at temperatures below +5°C

APPLICATION PROCEDURE

Preparation of the substrate

Substrates must be dry, sound, and free from laitance, dust, loose parts, paint, wax, oil, rust, curing compounds, and traces of gypsum.

Cement-based surfaces not sufficiently solid must be removed or, where possible, consolidated with **Profas**, **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 with **Livigum** (1 part **Livigum** with 5 parts water), in order to stabilise the dust and to provide uniform absorption of the substrate.

Anhydrite screeds must be mechanically abraded and can only be levelled with **Ultraplan Maxi** after a coat of **Primer G**, or **Primer EP** has been applied.

For application onto ceramic tiles or natural stone apply **Primer EP** after the surfaces have been cleaned with detergents and mechanically abraded. Level with **Ultraplan Maxi** before **Primer EP** has dried completely (indents must still be possible to make).

Preparation of the mix

Slowly pour a 25 kg bag of **Ultraplan Maxi** into a rust-free bucket containing 4.5-4.75 litres of clean water and mix with a low-speed electric mixer to obtain a homogeneous, self-levelling, lump-free mix.

Larger quantities of **Ultraplan Maxi** can be prepared in suitable mixers.

Allow the mixed **Ultraplan Maxi** to stand for 2-3 minutes, after which, the mix should be restirred, and then it is ready for use.

The amount of **Ultraplan Maxi** mixed at any time must be used within 30-40 minutes (at a temperature of +23°C).

When working in high ambient temperatures, established hot weather practices such as; shading of stored material, use of shading, avoiding application during the hottest time of the day, and use of cool water when mixing should be observed.

During and immediately after the application of the material, protection from the effect of excessive winds and drafts, (wind tunnel effect) is necessary to avoid rapid drying shrinkage through uncontrolled drying out of the mixed material.

Application of the mix

Apply **Ultraplan Maxi** in a single coat from 3 to 40 mm with a large metal trowel or spiked roller.

Ultraplan Maxi can also be applied with an automatic pressure pump. Due to its remarkable self-levelling characteristics, **Ultraplan Maxi** immediately eliminates small imperfections (trowel marks, etc.).

When laying underfloor heating systems follow the regulations for the preparation of the substrate and the heating start-up procedure.

On large surfaces follow all the movement joints present in the substrate, and form control joints for every 50 m² approx.

Cleaning

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

CONSUMPTION

1.7 kg/m² per mm of thickness.

PACKAGING

Ultraplan Maxi is available in 25 kg bags

STORAGE

Un-opened packs of **Ultraplan Maxi**, stored in a dry place, are stable for at least 12 months. Longer storage (over 12 months) could result in a slower setting time of **Ultraplan Maxi**. However, the performances of the levelling layer at longer ages are not significantly modified.

SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION

Ultraplan Maxi is an irritant; contains cement that when in contact with sweat or other body fluids causes irritant alkaline reactions and allergic reactions to those predisposed. During use, wear protective gloves and goggles and take the usual precautions for handling chemicals. If the product comes in contact with the eyes or skin, wash immediately with plenty of water and seek medical attention.

For further and complete information about the safe use of our product please refer to the latest version of our Material Safety Data Sheet.

TECHNICAL DATA (typical values) Conformity with: – European EN 13813 CT-C35-F7-A2 _{fl}	
PRODUCT IDENTIFICATION	
Consistency:	fine powder
Colour:	grey
Bulk density (kg/m ³):	1300
Dry solids content (%):	100
APPLICATION DATA (at +23°C - 50% R.H.)	
Mixing ratio:	approx. 18-19 parts of water per 100 parts by weight of Ultraplan Maxi
Thickness per coat (mm):	from 3 to 40
Self-levelling:	yes
Density of mix (kg/m ³):	2050
pH of mix:	approx. 12
Application temperature range:	from +5°C to +40°C
Pot life:	30-40 minutes
Setting time:	50-70 minutes
Set to light foot traffic:	3 hours
Time before laying flooring:	1-3 days depending thickness ambient temperature
FINAL PERFORMANCE	
Compressive strength (N/mm ²): – after 1 day: – after 3 days: – after 7 days: – after 28 days:	20.0 25.0 27.0 35.0
Flexural strength (N/mm ²): – after 1 day: – after 3 days: – after 7 days: – after 28 days:	3.5 4.5 5.0 8.0
Resistance to abrasion: Taber Abrasimeter (Abrading wheel - 500 g- 200 rpm) expressed in weight loss (g): – after 7 days: – after 28 days:	1.5 1.2
Brinell hardness (N/mm ²): – after 1 day: – after 3 days: – after 7 days: – after 28 days:	70 80 90 100

IMPORTANT NOTES

Whilst we try to ensure that any advice, recommendations or information given in our literature is accurate and correct, we have no control over the circumstances in which our product is used. It is therefore important that installers satisfy themselves that the product and conditions are suitable for the envisaged application. No warranty can be given or responsibility accepted other than, that the product supplied by us will meet our written specification. The installer should ensure that our latest product data and safety information sheets have been consulted prior to use.

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 other project-related documents, 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 ALTERATIONS TO THE WORDING OR REQUIREMENTS CONTAINED OR DERIVED FROM THIS TDS EXCLUDES THE RESPONSIBILITY OF MAPEI.

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

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