



Ultraplan Eco 20

Rapid hydrating, fast-drying self-levelling compound

WHERE TO USE

Ultraplan Eco 20 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 flooring where a high resistance to loads and traffic is required. **Ultraplan Eco 20** is especially suitable for areas subject to wheeled service loads such as chairs and trolleys.

Classified as CT-C20-F5 according to EN 13813.

Ultraplan Eco 20 is for interior use only. Typical applications would include use in hospitals, hotels, theatres, schools and shopping centres.

Some application examples

- Levelling concrete slabs and cementitious screeds or **Mapecem**, **Topcem**, **Mapecem Pronto** or **Topcem Pronto** based screeds.
- Levelling anhydrite substrates (using a suitable primer such as **Primer G** or **Eco Prim T**).
- Levelling underfloor cooling/heating systems.
- Levelling existing concrete pavements, terrazzo, ceramic, natural stone and magnesite floors.

TECHNICAL CHARACTERISTICS

Ultraplan Eco 20 is a grey powder consisting of special cements with fast setting and hydrating properties, with selected graded silica sand, resins and special additives prepared according to a formula developed in the MAPEI Research Laboratories. Mixed with water, **Ultraplan Eco 20** becomes a fast-drying yet fluid and easily workable compound, perfectly self-levelling with a high bond strength to the substrate.

Ultraplan Eco 20 can be applied with an automatic pressure pump for distances over 100 m.

Ultraplan Eco 20 can be applied in thicknesses up to 10 mm per layer without shrinkage, cracking or crazing, and develops good compressive and flexural strength as well as resistance to indentation and abrasion. For thicknesses greater than 10 mm (max. 20 mm), it may be necessary to add graded sand or alternatively to use a product more suitable for thicker sections such as **Ultraplan Maxi**. However, please contact your local MAPEI representative for guidelines and recommendations. Due to its rapid hydration formulation, subsequent installation of most types of flooring can begin approx. 12 hours after the application of **Ultraplan Eco 20**, regardless of thickness. For resilient allow a minimum 24 hours of prior to application.

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.
- Avoid using **Ultraplan Eco 20** for exterior levelling works, particularly where exposed to direct sunlight.
- Do not use **Ultraplan Eco 20** on substrates subject to continuous rising damp.
- Do not apply an additional coat of **Ultraplan Eco 20** when the previous one is completely dry; in this case first prime with **Primer G** diluted with 1:3 of water by volume, after first lightly abrading the surface of the previous layer, or with **Eco Prim T** (diluted 1:1 water).

TECHNICAL DATA (typical values)		– European EN 13813 CT-C20-F5
PRODUCT IDENTITY		
Consistency:	fine powder	
Colour:	grey	
Density (kg/m ³):	1300	
Dry solids content (%):	100	
Storage:	12 months in a dry place in original packing	
Hazard classification according to EC 1999/45:	irritant. Before using refer to the “Safety instructions for the preparation and application” paragraph and the information on the packing and Safety Data Sheet	
EMICODE:	EC1 R - very low emission	
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 Eco 20	
Thickness per coat:	from 1 to 10 mm	
Self-levelling:	yes	
Density of the mix (kg/m ³):	2000	
pH of mix:	approx. 12	
Application temperature range:	from +5°C to +40°C	
Pot life:	20-30 minutes	
Setting time:	45-60 minutes	
Set to light foot traffic:	3-4 hours	
Waiting time before subsequent bonding:	24-48 hours	
FINAL PERFORMANCES		
Compressive strength (N/mm ²): – after 28 days:	> 20.0	
Flexural strength (N/mm ²): – after 28 days:	> 5.0	

- Do not use **Ultraplan Eco 20** on metal surfaces.
- Do not use **Ultraplan Eco 20** when the temperature is below +5°C.

APPLICATION PROCEDURE

Preparing the substrate

The substrates must be sound, dry, free of dust, loose particles, wax, oils, rust, curing compounds and traces of paint and gypsum.

Any laitance or weak layers from cement based surfaces must be removed or where possible, the surface consolidated with **Prosfas** or **Eco Prim PU 1K**.

Cracks must be first repaired with **Eporip**.

Dusty or very porous concrete surfaces must be cleaned then treated with a coat of **Primer G** (1 part **Primer G** with 3 parts of water) or **Eco Prim T** (diluted 1:1 with water depending on the type of substrate).

If applying onto ceramic or natural stones, apply a coat of **Mapeprim SP** or **Eco Prim T** (diluted 1:1 water) after the surface has been thoroughly cleaned and/or mechanically abraded. Level with **Ultraplan Eco 20** before **Mapeprim SP** has dried completely (while indents are still possible to make).

Preparing the mix

Slowly pour a 23 kg bag of **Ultraplan Eco 20** into a rust-free bucket containing 5.5-5.75 litres of clean potable grade water and mix with a low speed electric mixer fitted with a suitable mixing paddle to obtain an homogeneous, self-levelling lump free mix. Larger quantities of **Ultraplan Eco 20** can be prepared in mortar mixers. After allowing to settle for 2-3 minutes, the mix should be re-stirred and is then ready for use.

The quantity of **Ultraplan Eco 20** mixed must be used within 20-30 minutes (at a temperature of +23°C).

Applying the mix

Apply **Ultraplan Eco 20** in a single layer of 1 to 10 mm thick with a large metal trowel or a squeegee, keeping the trowel slightly inclined to obtain the desired thickness.

Ultraplan Eco 20 can also be applied with an automatic pressure pump.

Due to its excellent self-levelling characteristic, **Ultraplan Eco 20** immediately eliminates small imperfections (trowel marks, etc.).

If a second layer of **Ultraplan Eco 20** 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). Otherwise if the previous layer is completely dry, prime with **Primer G** diluted with 1:3 with water after first lightly abrading the surface of the previous layer or **Eco Prim T** (diluted 1:1 water).

The levelling layer of **Ultraplan Eco 20** will be ready to receive ceramic, natural stone (non-sensitive) fixed with adhesives after 12 hours at +23°C and resilient flooring, carpet, after 24 hours at +23°C (time can vary depending on the thickness of the levelling, the room temperature and humidity).

Cleaning

Prior to setting, **Ultraplan Eco 20** can be cleaned and removed from tools and hands with water.

CONSUMPTION

1.6 kg/m² per mm of thickness.

PACKAGING

Ultraplan Eco 20 is available in 23 kg bags.

STORAGE

When stored in dry conditions in the original, unopened bags, **Ultraplan Eco 20** has a shelf life of 12 months. If stored at high temperature and or high humidity conditions the shelf life may be reduced.

The product complies with the conditions of Annex XVII to Regulation (EC) N° 1907/2006 (REACH), item 47.

A longer storage period could, determine a slower setting time of **Ultraplan Eco 20**. However, the performance of the levelling layer in the long term is not significantly affected.

SAFETY INSTRUCTIONS FOR THE PREPARATION AND APPLICATION

Ultraplan Eco 20 contains cement powders which, when mixed with water or becoming damp, releases alkali's which can be an irritant to the skin. During use, avoid inhalation of the dust and contact with skin or eyes. Wear suitable protective clothing such as eye protection and gloves. In case of contact with skin or eyes, rinse with plenty of clean water. For further and complete information about a safety use of our product please refer to our latest version of the Material Safety Data Sheet.

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 web site 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
More than 150 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.

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



**Ultraplan
Eco 20**



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