

# UC LEVELLER

Fast hardening levelling/ smoothing compound for thicknesses from 3 mm to 70 mm: especially recommended for pumping



## CLASSIFICATION ACCORDING TO EN 13813

The material properties of **UC Leveller** comply with the norms referred to in this technical data sheet and are classified as CT-C25-F7 according to EN 13813.

## WHERE TO USE

**UC Leveller** is used for levelling and smoothing of new or existing substrates prior to the installation of carpet, carpet tiles, ceramic tiles, natural stone or floating timber flooring. **UC Leveller** is used in areas where resistance to heavy loads and traffic is required, along with an especially smooth surface.

**UC Leveller** can be used in interiors in thicknesses from 3 to 70 mm as a bulk-filling underlayment compound. Because of its levelling properties and ease of pumpability, **UC Leveller** increases daily productivity and considerably reduces the cost of substrate preparation

### Some application examples

- Smoothing concrete slabs and cement-based screeds
- Smoothing for under-floor heating installations
- Smoothing over existing ceramic tile, terrazzo, natural stone and magnesite floors

## TECHNICAL CHARACTERISTICS

**UC Leveller** is a grey powder composed of special fast-setting and hydrating cements, specially graded silica sand, resins and special additives prepared according to a formula developed in the MAPEI research laboratories. When mixed with water, **UC Leveller** becomes a fluid, easy to work mix that has excellent self-levelling properties and cures rapidly. **UC Leveller** can be applied using an automatic pressure pump.

**UC Leveller** is strong enough to withstand wheeled chair traffic. Each coat of **UC Leveller** can be applied in thicknesses of up to 70 mm without significant shrinkage that might cause cracks or crazing. For thicknesses above 40 mm it is recommended to add 30% of 3-5 mm aggregate. Once completely dry **UC Leveller** has excellent compressive and flexural strength as well as resistance to impact and abrasion. Flooring can be installed once **UC Leveller** has dried (wait 12 hours before for light foot traffic and 24 hours waiting time before installing flooring at 23°C and 50% RH), depending on the thickness, temperature and moisture in the environment.

## RECOMMENDATIONS

- DO NOT add more water to the mix once it has begun to set
- DO NOT add lime, cement or gypsum to the mix
- Protect installed product from moisture. Do not use externally, in internal wet areas, or over substrates subject to rising damp.
- DO NOT apply another coat of **UC Leveller** once the previous one has completely dried without first applying **Eco Prim T Plus** diluted with 2 parts water.
- DO NOT use **UC Leveller** at temperatures below +5°C and above +35°

- Follow all movement joints present in the substrate and form control joints on large areas for alleviating stress. These should be every 50 m<sup>2</sup> or where a dimension exceeds 8 m.
- DO NOT use for levelling over timber substrates. Instead use **Ultraplan Renovation** or **Nivorapid** mixed with **Latex Plus**
- DO NOT apply **UC Leveller** in thicknesses less than 3 mm

## APPLICATION PROCEDURE

### Preparing the substrate

Substrates must be dry, solid and free of dirt, loose materials, paint, wax, oils, rust, traces of gypsum, curing and sealing compounds and all other materials which may interfere with bonding. All curing and sealing compounds, irrespective of the type (including dissipating curing compounds) must be completely mechanically removed. A minimum concrete surface profile (CSP) of CSP #3 is required. As a general rule, the higher the thickness of the levelling compound, the rougher the surface profile should be.

Cracks in cement substrates must be repaired with **Eporip**.

Cement based substrates which are not sufficiently solid must be removed or where possible consolidated with **Primer MF**. Where a moisture vapour barrier is required to protect the flooring system, install **Primer MF**, **Mapeproof 1K Turbo** or **Planiseal MR**. See relevant TDS for more information.

Porous substrates must be treated with **Eco Prim T Plus** diluted 1 part primer mixed with 2 parts water to prevent potential debonding and to make the substrate uniformly absorbent. **UC Leveller** should be applied after 2 -3 hours but within 24 hours of applying **Eco Prim T Plus**.

Non-porous substrates (such as ceramic tiles and natural stone) must be carefully cleaned to eliminate traces of wax and then treated with a primer such as **Eco Prim T Plus** (undiluted) or **Eco Prim Grip Plus**. **Magnesite** substrates must be primed with **Eco Prim T Plus**.

For all other forms of substrates and for further Surface Preparation information, please refer to **MAPEI's Surface Preparation Requirements brochure – Floor Covering Installation System** available on our website [www.mapei.com.au](http://www.mapei.com.au).

### Preparing the mix

Pour 3.4 - 3.8 litres of clean water into a container and gradually add the 20 kg bag of **UC Leveller**. Mix continuously at low speed with an electric mixer (300 RPM) until a homogenous lump free mix is obtained. Larger quantities can be mixed in a mortar mixer. Let the mix sit for a few minutes and then mix again briefly without adding any more water or powder. The mix is now ready to be applied. If applying at thicknesses above 40 mm, add 30% of 3-5 mm aggregate before briefly remixing. The mixed batch of **UC Leveller** must be used within 20 to 30 minutes (at a temperature of +23°C).

### Spreading the mix

Spread **UC Leveller** in a single coat from 3 to 70 mm thick with a large metal trowel or float, tilting the trowel slightly to obtain the desired thickness. **UC Leveller** can also be applied with a pump.

When a second coat is required, it is recommended to apply it as soon as the previous coat can be walked on (approx. 3 hours at +23°C). If 24 hours have passed between coats, prime with **Eco Prim T Plus** diluted with 2 parts water. The total thickness of all coats should not exceed the maximum thickness of the product without waiting for the product to completely cure and be free of shrinkage.

### Installing the flooring

Ceramic, natural stone, floating timber/ laminate and textile floorcoverings can be installed once the **UC Leveller** dries (12 hours for light foot traffic and 24 hours waiting time before installing flooring at 23°C and 50% RH).

If timber, vinyl or rubber flooring is to be installed, install a minimum 3 mm coat of **Ultraplan/Ultraplan Eco** over the already installed **UC Leveller**. Allow the **UC Leveller** to dry and then apply a diluted coat of **Eco Prim T Plus** (1 part primer to 2 parts water) prior to installing the **Ultraplan/Ultraplan Eco** levelling compound.

## CLEANING

While **UC Leveller** is still wet, hands and tools can be cleaned with water.

## CONSUMPTION

1.8 kg/m<sup>2</sup> per mm of thickness.

## PACKAGING

**UC Leveller** is available in 20 kg bags.

## STORAGE

12 months in original sealed packaging. Over longer periods the product may set less rapidly without changing its final performance results. Store in a dry, elevated area and protect from moisture

# SAFETY INSTRUCTIONS FOR THE 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 at [www.mapei.com.au](http://www.mapei.com.au).

PRODUCT FOR PROFESSIONAL USE

<b>TECHNICAL DATA (typical values) In compliance with:</b> - EN 13813 CT-C25-F7	
<b>PRODUCT IDENTITY</b>	
Consistency:	fine powder
Colour:	grey
Bulk density (kg/m <sup>3</sup> ):	1,250
Dry solids content (%):	100
VOC content (g/L):	0
<b>APPLICATION DATA (at +23°C - 50% R.H.)</b>	
Mixing ratio:	17-19 parts water to 100 parts UC Leveller by weight
Thickness (mm)	from 3 to 70
Density of mix (kg/m <sup>3</sup> ):	2,100
pH of mix:	> 12
Application temperature range:	from +5°C to +35°C
Setting time:	2-4 hours
Set to light foot traffic:	12 hours
Waiting time before installing flooring:	24 hours

<b>FINAL PERFORMANCES</b>	
Compressive strength (EN 196) N/mm <sup>2</sup> ): - after 1 day - after 3 days - after 7 days - after 28 days	14 16 20 30
Flexural strength (EN 196) N/mm <sup>2</sup> ): - after 1 day - after 3 days - after 7 days - after 28 days	3.5 4.0 5.0 8.5

## 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.au](http://www.mapei.com.au).

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