CLASSIFICATION ACCORDING TO EN 13813
Smoothing layers of Ultratop Industrial applied according to the specifications in this Technical Data Sheet are classified as CT - C40 - F10 - A9 - A2fl-s1 in compliance with EN 13813 Standards.

WHERE TO USE
Ultratop Industrial is used internally in industrial buildings, for levelling and smoothing new or existing concrete and screed substrates in thicknesses from 5 to 40 mm. Ultratop Industrial can be used inside warehouse industrial areas and surfaces where rubber-wheeled vehicles are in use.

Ultratop Industrial may be left as a finished floor due to its high mechanical strength and resistance to abrasion and thanks to its versatility, is suitable for numerous applications in the building sector for industrial use.

Some application examples
• New floors in workshops, factories, store rooms, plant rooms, garages and warehouses.
• Abrasion-resistant floors on concrete and screed.
• Industrial floors that must be protected with epoxy coatings and paints in chemical and food processing plants, textile mills and tanneries.

TECHNICAL CHARACTERISTICS
Ultratop Industrial is a self-levelling product in powder form available in grey, made up of special quick-drying and quick-setting binders, specially graded silica sand, synthetic resins and special additives developed in MAPEI’s own R&D Laboratories.

When mixed with water, Ultratop Industrial becomes a self-levelling compound which is easy to apply either by hand or pump in thicknesses from 5 to 40 mm.

After setting, which takes place in only a few hours, Ultratop Industrial has a high level of compressive and flexural strength, bonds perfectly to the substrate and thanks to its special composition, dries quickly so that any further finishing coat may be applied after a very short time.

Ultratop Industrial is classified as CT - C40 - F10 - A9 - A2fl-s1 according to EN 13813:2002 Standards. CT refers to a cementitious-based product, C40 and F10 refer to the compressive strength and flexural strength, respectively, after 28 days, A9 is the Böhme abrasion-resistance coefficient and A2fl-s1 is the fire-reaction class.

Ultratop Industrial complies with the principles defined in EN 13813 “Screeds and materials for screeds – Materials for screeds – Properties and requirements”, which defines the requirements applied to materials for screeds used in the construction of internal floors. Screeds and structural covering, such as those which help increase the load-bearing capacity of floors, are not included in this Standard.

Resin flooring and cementitious screeds are included in this specification. They must bear the CE symbol, as illustrated in attachment ZA.3 Tables ZA1.5 and 3.3.

RECOMMENDATIONS
• Do not add more water to the mix once Ultratop Industrial starts to set.
• Do not add lime, cement, gypsum or other binders to the Ultratop Industrial mix.

• Do not use Ultratop Industrial on substrates which are subject to rising damp (consult the MAPEI Technical Services Department).

• Do not use Ultratop Industrial for floating screeds. Ultratop Industrial must always be fixed to a solid, compact substrate.

• Do not use Ultratop Industrial on wet surfaces.

• Do not use Ultratop Industrial on metallic surfaces.

• Do not use Ultratop Industrial at temperatures lower than +5°C or higher than +35°C.

• The colours of floors made using Ultratop Industrial are not always uniform, a typical feature of cementitious-based products. Apart from the inherent nature of this kind of product, colour variations may also be caused by the way the product is applied. Also, it must be cast continuously without long pauses, in order to guarantee perfect flatness.

APPLICATION PROCEDURE
Preparing the substrate
Substrates must be dry, solid and free of dust, loose and detached parts, paint, wax, oil, rust and all other pollutants.

Apply a compressible band around the perimeter of the rooms to be laid and around any vertical elements which pass through the floor (such as pillars and columns).

Concrete surfaces must be prepared by shot-blasting or grinding and primed with Primer SN and, where required, reinforced with Mesh 320 (glass fibre mesh) followed by a full broadcast of Quartz 1.2. After application, leave the Primer SN to dry for 12-24 hours, according to the surrounding temperature. Before casting the Ultratop Industrial, remove excess quartz with a vacuum.

Cracks in the substrate must be repaired beforehand using Eporip.

Preparing the mix
Pour the content of a 25 kg bag of Ultratop Industrial into a container with 4.25-4.75 l of clean water and continue mixing with a low-speed electric mixer until a smooth, flowable, lump-free mix is formed.

Let it stand for 2-3 minutes and before applying, remix the blend for a few minutes more.

Only prepare the amount of Ultratop Industrial which will be applied within 15 minutes at a temperature of +23°C. The pot life of the mix varies according to the temperature and reduces as the temperature increases.

If Ultratop Industrial is to be applied on medium to large-sized surfaces, larger quantities may be prepared using a vertical-shaft mixer pump. If it is mixed using mechanical means, the amount of water required is the same as when mixing by hand. Mix the product until the blend is completely homogenous before laying.

Laying the mix
Spread Ultratop Industrial by hand or with a pump in a single layer of 5 to 40 mm and a smoother for a natural finish. Make sure that the material is cast in a regular, continuous flow without interruptions, to avoid defects in flatness and differences in colour. Thanks to its self-levelling properties, Ultratop Industrial eliminates all imperfections left by the smoother.

When applying the product, respect the expansion joints in the substrate and form distribution joints at least every 50 m². With heated floors, the bay size must be no more than 25-30 m².

Seal joints with Mapeflex PU45 single component, quick-hardening thixotropic polyurethane sealant and adhesive with a high modulus of elasticity for sealing expansion and distribution joints. Insert Mapefoam closed-cell polyethylene foam cord in the joint beforehand to obtain the required depth and avoid the sealant sticking to the bottom of the joint.

Floors made using Ultratop Industrial must be protected and then made non-absorbent using a Mapei finishing system. Choose the most suitable finishing system according to the finish or level of wear-resistance required. Please refer to MAPEI Technical Services department for information.

Cleaning
Whilst still fresh, Ultratop Industrial may be cleaned from hands and tools with water.

CONSUMPTION
Ultratop Industrial used pure: 16.5-17.5 kg/m² per cm of thickness.

PACKAGING
Ultratop Industrial is available in 25 kg bags.

STORAGE
Ultratop Industrial remains stable for 12 months if stored in a cool dry place.

If stored for longer periods, the setting time of Ultratop Industrial may increase but without affecting its final characteristics. The product complies with the conditions of Annex XVII to Regulation (EC) N° 1907/2006 (REACH), item 47.

SAFETY INSTRUCTIONS FOR PREPARATION AND APPLICATION
Ultratop Industrial contains cement that when in contact with sweat or other body fluids causes irritant alkaline reactions and allergic reactions to those predisposed. It can cause damage to eyes. It is recommended...
TECHNICAL DATA (typical values)

In compliance with: – EN 13813 : 2002, CT - C40 - F10 - A9 - A2fl-s1

PRODUCT IDENTITY

Consistency:  
Colour:  
Bulk density (kg/m³):  
Dry solids content (%):  

EMICODE:  EC1 R - very low emission

APPLICATION DATA (at +23°C and 50% R.H.)

Mixing ratio:  approx. 17-19 parts water per 100 parts by weight of Ultratop Industrial

Thickness (mm):  from 5 to 40

Self-levelling:  yes

Density of mix (kg/m³):  2,000 to 2,100

pH of mix:  approx. 12

Application temperature range:  from +5°C to +35°C

Pot life:  15 minutes

Setting time:  60 minutes

Set to light foot traffic:  3-4 hours

FINAL PERFORMANCES

<table>
<thead>
<tr>
<th>Performance characteristic</th>
<th>Test method</th>
<th>Requirements according to EN 13813 for cementitious screeds</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compressive strength:</td>
<td>EN 13892-2</td>
<td>5 &lt; N/mm² &lt; 80 (28 days) +23°C</td>
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<td></td>
<td></td>
<td>24 h ≥ 20</td>
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<td>72 h ≥ 25</td>
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<td>7 d ≥ 30</td>
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<td>28 d ≥ 40</td>
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<tr>
<td>Flexural strength:</td>
<td>EN 13892-2</td>
<td>1 &lt; N/mm² &lt; 50 (28 days) +23°C</td>
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<td></td>
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<td>24 h ≥ 5</td>
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<td></td>
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<td>72 h ≥ 7</td>
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<td>7 d ≥ 9</td>
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<td>28 d ≥ 11</td>
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<tr>
<td>Adhesion to concrete:</td>
<td>EN 13892-8</td>
<td>&gt; 1.5 N/mm² +23°C</td>
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<td></td>
<td></td>
<td>24 h 2.5 (substrate failure)</td>
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<td></td>
<td></td>
<td>28 d 2.5 (substrate failure)</td>
<td></td>
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<tr>
<td>Abrasion resistance</td>
<td>ASTM D4060</td>
<td>Taber abrasion test (H22 disk - 500 g - 200 rpm): +5°C</td>
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<td></td>
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<td>7 d 1.7 0.7</td>
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<td></td>
<td></td>
<td>28 d 1 0.6</td>
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</tr>
<tr>
<td>Abrasion resistance</td>
<td>EN 13892-3</td>
<td>Böhme abrasion test: +23°C</td>
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<tr>
<td></td>
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<td>1,5 &lt; cm³/50 cm² &lt; 22</td>
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<td></td>
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<td>24 h 2.5 (substrate failure)</td>
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<td></td>
<td>28 d 9</td>
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<tr>
<td>Reaction to fire:</td>
<td>EN 13501-1</td>
<td>Value declared by manufacturer A2fl-s1</td>
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</tbody>
</table>
to use protective gloves and goggles and to 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.

PRODUCT FOR PROFESSIONAL USE.

N.B.
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 the end users 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.
End users 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

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