

Ultra Tuf 55

Floor Smoothing Industrial Overlay



Product

Ultra Tuf 55 is a modified single component self leveling cementitious medium to heavy duty industrial floor overlay.

Description

Ultra Tuf 55 is a rapid hardening self leveling, polymer modified cementitious overlay which may be used as a stand alone wearing course. Ultra Tuf 55 has been formulated to achieve a smooth flat surface with ease of application and maximum flow without any shrinkage or cracking.

Recommended Uses

- Reinstatement of new or existing internal concrete floors subjects to foot traffic, cars, industrial equipment, light fork lift traffic or trolleys.
- Use as final wearing course overlay or may be coated with an appropriate resin floor coating. eg: terrazite based flooring applications.
- Hard wearing, long lasting durable overlay.
- Fast application, rapid cure minimises factory downtime.
- Residential, commercial and industrial applications, light to medium industrial applications.
- Use as stand alone system.
- Application thickness 8mm-20mm in a single application.

Features & Benefits

- Accepts foot traffic in 2 hours at 20°C.
- Reinstating large areas in relative short time periods.
- Very fast application.
- Dimensionally stable.
- Single component product.
- Installation can be carried out in a single application.
- Rapid curing.
- Can be applied directly onto prepared concrete surfaces.
- Eliminates the need for sand and cement screeds.

Performance Properties

Typical Compressive Strength

Tested in accordance with ASTM 109-C and M

| Age | Compressive Strength |
|---------|----------------------|
| 1 day | 15 - 20 Mpa |
| 28 days | 40 - 45 Mpa |

Typical Flexural Strength

Tested in accordance to ASTM C348 at 20°C

| Age | Flexural Strength |
|---------|-------------------|
| 28 days | 4 - 8 Mpa |

Typical Flowability

Tested in accordance to ASTM C190 flow cone at 20°C

| | |
|--------------|-------------|
| Initial Flow | 200 - 300mm |
|--------------|-------------|

Typical Bond Strength

Tested in accordance to ASTM C882

| Age | Bond Strength |
|---------|---------------|
| 28 days | > 5 Mpa |

Typical Setting Times

Vicat Setting times at 20°C

| | | |
|-------------|------|------------|
| Initial Set | 20°C | 50 minutes |
| | 30°C | 40 minutes |
| Final Set | 20°C | 60 minutes |
| | 30°C | 50 minutes |



Typical Working Time

| Temp | Time |
|------|-----------------|
| 10°C | 50 - 60 minutes |
| 20°C | 30 - 40 minutes |
| 30°C | 20 - 30 minutes |

Application Thickness

| | |
|---------|-------|
| Minimum | 6 mm |
| Maximum | 30 mm |

Traffic Time 20°C

| | |
|-----------------|-----------|
| Foot Traffic | 2 hours |
| Vehicle Traffic | 4-6 hours |

Application Temperature

| | |
|---------|------|
| Minimum | 5°C |
| Maximum | 30°C |

Abrasion Resistance

Tested in accordance to ASTM C501-1984 (Taber Abrasion)

| Time | Wear Index |
|---------|------------|
| 28 days | 300 - 350 |

Comparison Chart

| Product | Wear Index | Classification |
|---------------------|------------|----------------|
| Ceramic Tile | 142 | Very High |
| (Basselt) Bluestone | 29 | Poor |
| Concrete 30 Mpa | 36 | Poor |
| Concrete 60 Mpa | 71 | Low |
| Cast Iron | 99 | Low-High |

Coverage

The approximate coverage are obtained if mixed in accordance with recommended procedures and accurately measured water content.

| Thickness | Area m ² per 20kg bag |
|-----------|----------------------------------|
| 6 mm | 2.2 |
| 10 mm | 1.3 |
| 20 mm | 0.6 |

Maximum Water Requirement per 20kg Bag

4.8 Liters

Packaging

Ultra Tuf 55 is supplied in a 20kg polylined bag.

Application Instructions

Substrate Surface Preparation

Ensure the concrete substrate is clean and free from oil, grease, sealers, curing compounds, paints, polymer coating, dust or other foreign (bond breaking) matter. Excess bitumen, adhesive or laitance should be removed by light scabbling or mechanical captive shot blasting. Followed by vacuum to remove debris and dust. Large cracks or holes may be filled using equal parts of Ultra Tuf 55 and clean fine sand made up to a trowellable consistency.

Ensure the substrate is primed with Primer prior to carrying out application. New concrete floors must be at least 14 days old prior to application of Ultra Tuf 55.

Note: New concrete floors need to be less than 5.5% moisture content prior to Ultra Tuf 55 application. If this cannot be achieved, use Moisture Barrier.

Priming

Prime clean dust free concrete substrate with Primer using a brush, broom or roller. Allow primer to reach a dry film consistency before applying Ultra Tuf 55.

DO NOT OVER DILUTE PRIMER

Mixing of Sure Level SL Primer

Primer Bottle Content (5 Litre). Add contents of 5 Litre Primer bottle into a clean empty 20 litre pail. Add 10 liters of clean water to the Primer giving a volume of 15 litres of Primer.

DO NOT APPLY Ultra Tuf 55 TO UNPRIMED SURFACE

Do not allow dust film to cover primed area prior to application of Ultra Tuf 55. If this occurs the area must be reprimed with Primer prior to proceeding with application of Ultra Tuf 55.

For concrete substrates subject to rising damp or moisture a waterproof membrane is required. It is recommended that Moisture Barrier be used as the primer. (Contact Sure Level Saudia office for further details).

Mixing

Ultra Tuf 5.5 requires 4.1 litres of water (depending on desired consistency). To a clean mixing bucket, add the Ultra Tuf 55 powder to the pre-measured water ensuring product is being mixed during powder addition. When all the Ultra Tuf 55 is added to the water, mix for a further 2-3 minutes until a smooth homogeneous consistency is obtained. Ultra Tuf 55 is supplied in ready to use form requiring only the addition of water. Ensure the product is mixed for a minimum of 5 minutes.

DO NOT MIX BY HAND

Ultra Tuf 55 must be mixed with a mechanical forced action mixer with high shear stirrer.

DO NOT ADD EXCESS WATER

Discard any material that has hardened or stiffened.

Placing

Pour the mixed material on the primed substrate and allow material to seek its own level. Material may be spread with a steel trowel spreader or squeegee. Keep the trowel slightly inclined to obtain desired thickness. To ensure uniform consistency and uniform continuous flow application of Ultra Tuf 55, it is advised that subsequent mixes are ready to enable continuous pouring until the area to be levelled is complete. Protect the finished area from damage until Ultra Tuf 55 has dried. For very large areas, Ultra Tuf 55 can also be applied using an automatic pump. (Consult Surelevelsaudia for further information).

Curing

No special curing is required. The addition of water to Ultra Tuf 55 after it has started to stiffen is not recommended and the product should be discarded. The recommended application thickness ranges from 6mm to 20mm in a single application. (consult Surelevelsaudia for further information).



Precautions

- Do not use in temperatures greater than 30°C as flash setting will occur.
- Ultra Tuf 55 must not be used in areas subject to occasional or permanent wetting or where back water pressure is likely.
- Ultra Tuf 55 must not be permitted to come into contact with water at any stage during use.
- To avoid too rapid drying, protect applied Ultra Tuf from direct sunlight or drying winds during actual application, and while curing for up to 24 hours. If the substrate on to which Ultra Tuf 55 is applied moves or cracks, reflective cracking will occur in the Ultra Tuf 55.
- New concrete surfaces must be at least 14 days old prior to application of Ultra Tuf 55.

Substrates

For concrete substrates subject to rising damp or moisture, a water proof membrane barrier coating is required. It is recommended that Moisture Barrier be used as the primer. (Contact office).

Yields

The approximate yields are obtained if mixed in accordance with recommended procedures and accurately measured water content. A 20kg bag of Ultra Tuf 55 with 4.1 litres of water will yield approximately 13 litres. 77 bags are required per cubic metre. A 20kg bag of Ultra Tuf 55 will cover approximately 1.3m² at 10mm thick or 1m² at 13mm thick or 2.2 m² at 6mm thick.

Clean Up

Ultra Tuf 55 should be removed from tools and equipment with clean water immediately after use.

Storage

Ultra Tuf 55 has a shelf life of approximately 8 months if kept in a dry environment completely away from moisture.

Health and Safety

- During use, avoid inhalation of dust, contact with skin and eyes.
- Suitable protective clothing, dust masks, gloves and eye protection should be worn.
- Continual or extended contact with cement products can cause skin irritation.

Disclaimer

Please Note: Recommendation and advice regarding the use of this product is to be taken as a guide only and SureLevelSaudia shall not be liable for any inaccuracy in the information or for any loss, injury or damage whatsoever resulting from its use. To the full extent permitted by law, SureLevelSaudia liability is limited at its discretion, to the replacement of the goods or the supply of equivalent goods.

Disclaimer

Ultra Tuf 55 is non flammable.

Part Number

SL 55