



Technical Data Sheet

# Ultra Tuf 55

## Floor Smoothing Industrial Overlay



### Product

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

### Description

Ultra Tuf 55 is a rapid hardening self levelling, 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 subject 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 6mm-20mm in a single application.

### Features & Benefits

- Accepts foot traffic in 2 hours at 20oC.
- 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 AS1012.9 at 20C and AS2073

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

#### Typical Flexural Strength

Tested in accordance to ASTM C348 at 20C

Age	Flexural Strength
28 days	4-8 Mpa

#### Typical Flowability

Tested in accordance to BS890 flow cone at 20C

Initial Flow	200-300mm
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#### Typical Bond Strength

Tested in accordance to ASTM C882

Age	Bond Strength
28 days	> 5 Mpa

#### Typical Setting Times

Vicat setting times at 20C

Initial Set	20C	50 minutes
	30C	40 minutes
Final Set	20C	60 minutes
	30C	50 minutes

#### Typical Working Time

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

#### Application Thickness

Minimum	6mm
Maximum	30mm

#### Fresh Wet Density

1850kg/m<sup>3</sup> approx. (Tested in accordance to AS1012.5)

#### Traffic Time 20°C

Foot Traffic	2 hours
Vehicle Traffic	4-6 hours

#### Application Temperature

Minimum	5C
Maximum	30C

#### Abrasion Resistance

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

Time	Wear Index
28 days	300-350

#### Comparison Chart

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

#### Coverage

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

Thickness	Area m <sup>2</sup> per 20kg bag
6mm	2.2
8mm	1.6
10mm	1.3
12mm	1.1
15mm	0.8
20mm	0.6

#### Maximum Water Requirement per 20kg Bag

4.1 litres

#### 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 coatings, 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 litres of clean water to the Primer giving a volume of 15 litres of Primer.

Note:- Do not dilute more or less than 2 parts water x 1 part primer at any time. Apply Primer at 4-5m<sup>2</sup>/litre per coat.

#### **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 office for further details).

## Mixing

Ultra Tuf 55 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 office 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 office for further information).

## Precautions

- Do not use in temperatures greater than 30C 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 required per cubic metre. A 20kg bag of Ultra Tuf 55 will cover approximately 1.3m<sup>2</sup> at 10mm thick, or 1m<sup>2</sup> at 13mm thick, or 2.2m<sup>2</sup> 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

This product is classified as hazardous according to criteria of Work Safe Australia. Material containing Portland Cement and sand now fall into this category. Continuous or extended contact with this product may cause irritation as well as respiratory issues such as bronchitis or silicosis.

- 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.
- If skin irritation occurs, remove contaminated clothing and flush skin thoroughly with water for a minimum of 15 minutes. Contact Poisons Information Centre or consult medical adviser.
- Material Safety Data Sheets (MSDS) are available on request from the office. Read the MSDS and product data sheet carefully before

## Disclaimer

Please Note: Recommendation and advice regarding the use of this product is to be taken as a guide only and Sure Level Pty. Ltd. 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, Sure Level Pty. Ltd. liability is limited at it's discretion, to the replacement of the goods or the supply of equivalent goods.

## Fire

Ultra Tuf 55 is non flammable.

## Part Number

SL Ultra Tuf 55