



## technical data sheet

# ULTRALEVEL SL

## Self Levelling Cementitious Underlay

### PRODUCT

Ultralevel SL is a self-levelling polymer modified cementitious underlay.

### DESCRIPTION

Ultralevel SL is a rapid hardening self-levelling, single component cementitious underlay. Ultralevel SL has been formulated to achieve a smooth flat surface with ease of application and maximum flow without any shrinkage or cracking.

### RECOMMENDED USES

- Underlayment for floor coverings such as carpet, ceramic tiles, vinyl, parquet etc.
- Fast repairs of uneven concrete floors.
- Residential, commercial and medium industrial application.
- Application thickness from 2mm to 120mm in a single application.
- New construction and refurbishment projects.
- Flat smooth surfaces over existing concrete slabs.
- Levelling existing uneven concrete floors.
- New construction and refurbishment projects.

### FEATURES & BENEFITS

- Accepts foot traffic in 2 hours.
- Reinstating large areas in relative short time periods.
- Very fast application.
- Dimensionally stable.
- Single component product, just add water.
- 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.
- Floor covering may be applied next day.

### PERFORMANCE PROPERTIES

#### COMPRESSIVE STRENGTH

Tested in accordance to AS10129.9, AS2073 at 20°C

Age	Compressive Strength
1 day	15MPa
3 days	22MPa
7 days	25Mpa
28 days	35Mpa

### FLEXURAL STRENGTH

Tested in accordance with ASTM C348-86 at 20°C

Age	Compressive Strength
1 day	3.5MPa
3 days	4.5Mpa
7 days	7.8Mpa
28 days	11.0Mpa

### FLOWABILITY

Tested in accordance to BS890 flow cone at 20°C

Initial Flow	280-300mm
Flow after 10 minutes	270-290mm

### BOND STRENGTH

Tested in accordance to ASTM C882 - 1987 Slant/Shear method.

Age	Strength
7 days	> 3MPa
28 days	> 5Mpa

### SETTING TIMES

Vicat setting times at 20°C

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

### WORKING TIME

Temperature	Times (minutes)
10°C	50-60 minutes
20°C	30-40 minutes
30°C	40-50 minutes

### APPLICATION THICKNESS

Minimum	2mm-3mm
Maximum	120mm

### COEFFICIENT OF THERMAL EXPANSION

10 -12 X 10<sup>-6</sup> mm/°C

### FRESH WET DENSITY

1860 kg/m<sup>3</sup> approx. (tested in accordance to AS1012.5)

## TRAFFIC TIME 20°C

Foot Traffic	2 hours
Vehicle Traffic	12 hours
Time to cover with floor covering (overlay)	< 10mm 12-18 hours > 10mm 24 hours

## APPLICATION TEMPERATURE

Minimum	5 °C
Maximum	30 °C

## DRYING TIME

Time (days)	Shrinkage (Microstrain)
7 days	< 150 Microstrain
28 days	< 400 Microstrain
56 days	< 600 Microstrain.

## WATER REQUIREMENT PER 20KG BAG

4.3 Litres.

## PACKAGING

Ultralevel SL is supplied in a 20 kg polylined bag.

## COVERAGE

A 20kg bag of Ultralevel SL mixed with 4.3 litres of clean water will yield approximately 13 litres. This quantity will cover approx 1.3m<sup>2</sup> @ 10mm thick.

Thickness	Area m2 per 20kg bag
2mm	6.5
4mm	3.3
5mm	2.6
6mm	2.2
8mm	1.6
10mm	1.3
13mm	1.0

Yield 80 bags per cubic metre.

## APPLICATION INSTRUCTIONS

### SUBSTRATE AND 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 laitence should be removed by light scabbling or mechanical captive shot blasting or grinding, followed by vacuuming to remove debris and dust. Large cracks or holes may be filled using Ultra Rapidset in accordance with Technical Data Sheet.

**Prior to carrying out application the substrate must be primed with ;**

**Porous Substrate:** Must be primed with Ultralevel Primer

**Non Porous** Must be primed with Ultra NP primer.

New concrete floors must be at least 14 days old prior to application of Ultralevel SL.

## PRIMING

### POROUS SUBSTRATE FLOORS

Prime the clean dust free concrete substrate with Ultralevel Primer using a brush, broom or roller. Allow primer to reach a tacky consistency before applying Ultralevel SL.. Approximate drying time for the primer is 40 - 60 minutes at 50% RH and 25°C.

Ultralevel Primer is supplied in a concentrate form and should be diluted 2:1 with water, 2 parts water to 1 part Ultralevel Primer Concentrate. Primer will dry in approximately 40-60 minutes depending on substrate and/or temperature. Extremely porous substrates such as weather damaged slabs, aerated lightweight concrete etc., and may require a second coat of primer to avoid pinholes or bubbles in the levelling compound.

If a second coat is required allow the first coat to dry prior To application of consecutive coat. Apply primer at 8-10M<sup>2</sup> / litre. Brush out ponded primer to allow for even and complete drying of the Ultralevel Primer prior to the application of Ultralevel SL

## DO NOT APPLY ULTRALEVEL SL TO UNPRIMED SURFACE.

Primed areas should receive the Ultralevel SL as soon as possible after the primer becomes tacky so to avoid dust and surface contamination effecting adhesion of the Ultralevel SL to the Primer

Refer to A.S.1884-1985 Section 2.1.1.2 for allowable moisture content. For concrete substrates that contain greater than 5.5% moisture content or are subject to greater than 70% relative humidity, rising damp or moisture a moisture barrier is required. It is recommended that Bostik Moisture Seal be used. Moisture Seal should be used as a vapour barrier prior to the application of Ultralevel SL applied in accordance with Moisture Seal Technical Data Sheet (contact Bostik Office for further Information). Floors treated with Moisture Seal should be treated as a non porous surface and primed with Ultra NP Primer.

## NON-POROUS FLOORS:

For application of Ultralevel SL to non-porous substrates use Bostik NP Primer contact your nearest Bostik office for Technical Data Sheet.

## MIXING

Ultralevel SL requires 4.3 litres of water per 20 kg bag and is best mixed with a forced action, high shear stirrer, powered by a heavy duty electric mixing drill at approx. 600 r.p.m. Add pre-measured water to a clean mixing bucket. Gradually add Ultralevel SL into the water whilst continuously mixing the contents of the bucket. When the entire contents of the bag have been added to the water, mix for a further two minutes to produce a smooth homogenous consistency.

**DO NOT MIX BY HAND.**

**DO NOT ADD EXCESS WATER.**

Discard any Ultralevel SL that has hardened or stiffened in the mixing bucket. Further addition of water will NOT reconstitute a useable mixture.

## PLACING

Pour the mixed material on the primed substrate and allow material to seek its own level. Ultralevel SL 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 Ultralevel SL, it is advised that subsequent mixes are ready to enable continuous pouring until the area to be levelled is complete. Protect the finished areas from damage until Ultralevel SL has dried.

For very large areas Ultralevel SL can also be applied using an automatic pump. (Consult Bostik office for further information).

## CURING

No special curing is required. The addition of water to Ultralevel SL after it has started to stiffen is not recommended. Any Ultralevel SL that has not been placed whilst still fully fluid, should be discarded.

## PRECAUTIONS

- Ultralevel SL must not be used in areas subject to occasional or permanent wetting or where back water pressure is likely.
- Ultralevel SL must not be permitted to come into contact with water at any stage during use.
- Do not apply Ultralevel SL as a scratch coat.
- Ultralevel SL is not designed as a wearing coarse or as a water-proofing agent, and should only be used as an underlayment.
- To avoid too rapid drying protect from direct sunlight or drying winds during actual application, and while curing for up to 12 hours.
- If substrate on to which Ultralevel SL is applied moves or cracks, reflective cracking will occur in the Ultralevel SL .
- Depending on thickness and ambient temperatures Ultralevel SL can be covered with flooring materials in 24 hours.
- For large and thick sections it is advised to check the moisture content of Ultralevel SL prior to application of floor coverings.
- New concrete surfaces must be at least 21 days old prior to application of Ultralevel SL.
- Check concrete substrates for moisture content prior to application of Ultralevel SL.
- Do not mix by hand.
- Do not add excess water.

## P.A.T.S (Pretested Adhesion To Substrate) Programme

Bostik offer a service in which a program has been established to eliminate potential field problems by pre-testing Bostik adhesives with samples of building materials to which the adhesive will be applied. This service is available on large projects where pre-application testing will aid in determining the proper surface preparation method to achieve optimum adhesion. Consult a Bostik representative for further information.

## HEALTH & SAFETY

### HAZARDOUS

Cement products are classified as hazardous under General Health and Safety guidelines and materials containing Portland cement are alkaline in nature.

**RISK:** Irritating to eyes. Risk of serious damage to eyes. Harmful: danger of serious damage to health by prolonged exposure through inhalation.

**SAFETY DIRECTIONS:** Avoid contact with skin and eyes. Avoid breathing dust. Wear overalls, safety shoes, impervious gloves and chemical goggles. Use only in well ventilated areas. If inhalation risk exists wear dust respirator. Avoid contact with foodstuffs. Wash hands thoroughly after use. Store in a cool place and out of direct sunlight. Keep containers closed when not in use. Do not empty into drains.

**FOR FIRE:** Non-combustible, however, if involved in a fire use water fog, foam or dry agents. Avoid breathing products of combustion

**FOR SPILLS:** Clear area of all unprotected personnel. Slippery when spilt. Wear protective equipment. Collect and seal in properly labelled drums. Refer to State/Territory Land Waste Management Authority for disposal.

**FIRST AID:** If poisoning occurs, contact a Doctor or Poisons Information Centre (Phone Australia 131 126; New Zealand 0800 764 766).

**SWALLOWED:** If swallowed, do NOT induce vomiting. Give a glass of water. Seek medical assistance.

**EYE:** If in eyes, hold eyes open, flood with water for at least 15 minutes and see a doctor.

**SKIN:** If skin contact occurs, remove contaminated clothing and wash skin thoroughly. If irritation occurs seek medical advice.

**INHALED:** Remove from contaminated area. Seek medical advice.

**DO NOT REUSE CONTAINER UNLESS THOROUGHLY DECONTAMINATED.**

**SEE THE MATERIAL SAFETY DATA SHEET FOR ADDITIONAL INFORMATION.**

**EMERGENCY INFORMATION: 1800 033 111 (ALL HOURS)**

## CLEAN-UP

Ultralevel SL should be removed from tools and equipment with clean water immediately after use.

## STORAGE

Ultralevel SL has a shelf life of approximately 12 months if kept in a dry environment completely away from moisture.

ITEM NO.	STOCK SIZE	COLOUR
<b>ULTRALEVEL SL</b>		
267805	20kg Bag	Grey
<b>ULTRALEVELPRIMER</b>		
269514	5 Litres Conc	Pink
302074	1 Litre Conc	Pink
<b>ULTRA NP PRIMER</b>		
287032	4 Litre Kit	Green
<b>ULTRA RAPIDSET</b>		
272469	20kg Bag	Grey
<b>ULTRAFINE FINISH</b>		
272450	5kg Pail	Grey
<b>PATCHFIX COARSE FILLER</b>		
272132	20kg Bag	Beige
<b>ULTRALEVEL HD</b>		
273945	20kg Bag	Grey
<b>ULTRALEVEL LW</b>		
286036	20kg Bag	Grey

The representations and recommendations regarding the products are based on tests which we believe to be reliable. However, no guarantee of their accuracy can be made because of the great range of field conditions and variations encountered in raw materials, manufacturing equipment and methods. Thus, the products are sold with a limited warranty only, and on the condition that purchasers will make their own tests to determine the suitability of the product for their particular purposes. Under no circumstances will Bostik Findley Australia Pty Ltd be liable to anyone except for replacement of the products or refund of the purchase price.

**ALL SALES ARE EXPRESSLY LIMITED TO THE TERMS AND CONDITIONS OF SALE OF BOSTIK AUSTRALIA PTY LTD**

**FOR FURTHER INFORMATION**



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