

technical data sheet

ULTRALEVEL LIGHTWEIGHT

Polymer Modified Lightweight Self Levelling Cementitious Underlay

PRODUCT

Ultralevel Lightweight is a self-levelling low density polymer modified high build cementitious underlay.

DESCRIPTION

Ultralevel Lightweight is a high build, rapid hardening self-levelling polymer modified cementitious bulk fill. Ultralevel Lightweight has been formulated for maximum flow and easy application to achieve a relatively flat surface without any shrinkage or cracking. Ultralevel Lightweight is specifically designed for building up thick sections of uneven concrete floors where weight constraint is a major criteria.

RECOMMENDED USES

- Underlayment of floor coverings such as carpet, ceramic tiles.
- Fast repairs of uneven concrete floors where thickness of greater than 20mm is required.
- Residential, commercial and medium industrial application.
- Application thickness from 10mm edge to 200mm 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.
- Economical reinstatement of uneven concrete requiring high builds.
- Application where a lightweight screed is required due to weight constraints.

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.
- Economical reinstatement of uneven concrete floors requiring a high build up.

PERFORMANCE PROPERTIES

COMPRESSIVE STRENGTH

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

| Age | Compressive Strength |
|---------|----------------------|
| 1 day | 12Mpa |
| 3 days | 20Mpa |
| 7 days | 25Mpa |
| 28 days | 30Mpa |

FLEXURAL STRENGTH

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

| Age | Flexural Strength |
|---------|-------------------|
| 1 day | 3.0Mpa |
| 3 days | 4.0 Mpa |
| 7 days | 6.6Mpa |
| 28 days | 8.0Mpa |

FLOWABILITY

Tested in accordance to BS890 Flow cone at 20°C

| Initial Flow | 260 – 280mm |
|-------------------|-------------|
| Flow after 10 min | 250 – 270mm |

BOND STRENGTH

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

| Age | Strength |
|---------|----------|
| 7 days | > 5Mpa |
| 28 days | > 7Mpa |

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 TIMES

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

APPLICATION THICKNESS

| Minimum | 10mm |
|---------|-------|
| Maximum | 200mm |

COEFFICIENT OF THERMAL EXPANSION

10 – 12 x 10⁻⁶ mm/°C

FRESH WET DENSITY

1050 kg/m³ approx. (tested in accordance to AS1012.5)

TRAFFIC TIME 20°C

| | |
|---|---------------------------------------|
| Foot Traffic | 2 hours |
| Light Vehicle Traffic | 24 hours |
| Time to cover with floor covering (overlay) | < 30mm 24 hours > 30mm 36-48 hours |

APPLICATION TEMPERATURE

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

PACKAGING

Ultralevel Lightweight is supplied in a 20kg polylined bag.

COVERAGE

A 20kg bag of Ultralevel Lightweight mixed with 4.0 litres of clean water will yield approximately 22 litres. This quantity will cover approximately 2.2m² @ 10mm thick.

| Thickness | Area m ² per 20kg bag |
|-----------|----------------------------------|
| 10mm | 2.2 |
| 15mm | 1.5 |
| 20mm | 1.1 |
| 30mm | 0.73 |
| 40mm | 0.55 |
| 50mm | 0.44 |
| 100mm | 0.22 |
| 200mm | 0.11 |

APPLICATION INSTRUCTIONS

Surface Preparation

Ensure substrate is clean, dry and free from oil, grease, sealers, curing compounds, paints, polymer coatings, dust or any other contaminant or coating that may affect the bonding of Ultralevel Lightweight onto the substrate. All foreign material, e.g. bitumen, adhesive or laticence must be removed by mechanical means such as scabbling, capture shot blasting or grinding. The substrate must be primed prior to carrying out the application of Ultralevel Lightweight.

PRIMING

Concrete Floors

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

Apply the Ultralevel Lightweight as soon as possible after the primer has dried or re-priming maybe required.

Extremely porous substrates, such as damaged slabs and aerated or lightweight concrete etc may require a second coat of Ultralevel Primer to avoid pinholes and bubbles in the Ultralevel Lightweight. The first coat of primer must be dry before the application of the second coat. Apply Ultralevel Primer at 8-10m²/litre per coat, after 2:1 dilution with water (2 parts water, 1 part Ultralevel Primer). Brush out ponded primer to allow for even and complete drying of the Ultralevel Primer prior to the application of Ultralevel Lightweight.

Non Absorbent Floors

For application of Ultralevel Lightweight to non-porous substrates prime the entire area with Ultra NP Primer in accordance with Technical Data Sheet.

DO NOT APPLY ULTRALEVEL LIGHTWEIGHT TO AN UNPRIMED SURFACE.

MIXING

Ultralevel Lightweight requires 4.0 litres of clean water per 20kg 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 Lightweight 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 (2) minutes to produce a smooth homogenous consistency.

DO NOT MIX BY HAND

DO NOT ADD EXCESS WATER

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

PLACING

Pour the fully mixed Ultralevel Lightweight onto the primed substrate and allow it to seek its own level. Ultralevel Lightweight may be spread with a steel trowel, spreader or squeegee. Keep the trowel blade slightly inclined to achieve the desired thickness of cover. To ensure uniform consistency and continuous flow of the fluid Ultralevel Lightweight, it is advised that subsequent mixes are ready to enable continuous pouring until the entire area to be levelled is complete.

CURING

No special curing is required.

Typical Application: Dual Layer System for Smooth Finishing.

- Thoroughly prepare the floor surface.
- Prime the surface with appropriate primer depending on substrate and allow to dry.
- Apply Ultralevel Lightweight to the required minimum 10mm thickness onto the dry primed surface.
- After 24 hours prime hardened Ultralevel Lightweight with Ultralevel Primer at Primer at 8-10m²/litre per coat, after 2:1 dilution with water (2 parts water, 1 part Ultralevel Primer) and allow to dry.
- Apply Ultralevel SL onto primed Ultralevel Lightweight.

PRECAUTION

- Concrete substrates must be at least 21 days old.
- Do not over water.
- Do not hand mix.
- Can be walked on after 2-4 hours.
- Do not use in external applications.
- Protect from direct sunlight or drying winds during cure.
- Do not use in areas subject to hydrostatic head of pressure.
- Do not use in areas subject to constant contact with moisture.
- Not recommended as a finished floor coating or wearing surface.
- Not recommended for application on floor coatings such as acrylic or epoxy.

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.

SUBSTRATES

Concrete substrates that have a moisture content greater than 5.5% subject to rising damp or moisture, require a moisture vapour barrier prior to installation of Ultralevel Lightweight. Contact your nearest Bostik office for application instructions on Bostik Moisture Seal to overcome damp substrate conditions.

HEALTH AND SAFETY

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

- Avoid contact with skin, eyes and avoid breathing in dust.
- Wear suitable protective clothing, dust masks, gloves and eye protection.
- Continual or extended contact with cement products can cause skin irritation.
- If poisoning occurs, contact a doctor or Poisons Information Centre.
- If swallowed, do not induce vomiting. Give a glass of water.
- If skin contact occurs, remove contaminated clothing and flush skin thoroughly for a minimum of 15 minutes and see a doctor.
- For more detailed information refer to MATERIAL SAFETY DATA SHEET.

CLEAN-UP

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

STORAGE

Ultralevel Lightweight has a shelf life of approximately 12 months if kept in a dry environment away from moisture. For further information consult Bostik TECHNICAL DATA SHEET.

FIRE

Ultralevel Lightweight is non flammable.

| ITEM NO. | STOCK SIZE | COLOUR |
|-------------------------------|----------------|--------|
| ULTRALEVEL LIGHTWEIGHT | | |
| 286036 | 20kg Bag | Grey |
| ULTRALEVEL BULKOUT | | |
| 272558 | 20kg Bag | Grey |
| ULTRALEVEL SL | | |
| 267805 | 20kg Bag | Grey |
| ULTRA FEATHER FINISH | | |
| 272450 | 5kg Pail | Grey |
| ULTRALEVEL PRIMER | | |
| 269514 | 5 Litre Bottle | Blue |
| ULTRA NP PRIMER | | |
| 287032 | 4 Litre Kit | Green |
| MOISTURE SEAL | | |
| 263362 | 8 Litre Kite | Grey |
| 263370 | 20 Litre Kit | 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 FINDLEY AUSTRALIA PTY LTD



BOSTIK FINDLEY AUSTRALIA PTY LTD
 Phone: +61-3-9279 9333
 Fax: +61-3-9279 9240

BOSTIK FINDLEY NZ LIMITED
 Phone: +64-4-567 5119
 Fax: +64-4-567-5412

BOSTIK FINDLEY SINGAPORE PTE LTD
 Phone: +65-6863 4088
 Fax: +65-6863 4077

BOSTIK FINDLEY (MALAYSIA) SDN BHD
 Phone: +606 678 9788
 Fax: +606 678 9766

SYDNEY
 Phone: 02 8825 3488
 Fax: 02 8825 3411

ADELAIDE
 Phone: 08 8244 0511
 Fax: 08 8244 0522

PERTH
 Phone: 08 9331 7666
 Fax: 08 9331 7677

BRISBANE
 Phone: 07 3265 2377
 Fax: 07 3265 5421

(ABN 79 003 893 838)

Product: Ultralevel Lightweight
 Issue Date: 8th April 2003
 Issue No: 1
 Division: Building & Const
 Total Pages: 3