



Technical Data Sheet

Normal Set Bulk 30

Bulking & Floor Smoothing Underlay



Product

Normal Set Bulk 30 is a self levelling modified cementitious underlay for use in bulking large thicknesses down through rounded washed stone from zero to 300 + thicknesses in one single application.

Description

Normal Set Bulk 30 is a rapid hardening self levelling single component cementitious underlay. Normal Set Bulk 30 has been formulated to achieve a smooth flat surface with ease of application and maximum flow without any shrinkage or cracking. Recommended for bulking systems.

Recommended Uses

- For Bulking down large thicknesses down through rounded washed stone from zero to 300 + without shrinkage prior to ceramic tile laying
- Prior to underlaying graded floors creeds
- Prior to trowel on epoxy application

Features & Benefits

- Average of total thickness 50mm covering 300sqm can be achieved in one application in one day. After 2 hours the floor is ready for walkable traffic. 12 hours after application at any thickness ceramic tiles can be laid at 20 C if the area is vented to outside.
- 36 hours after application vinyl and carpet can be laid at 20 C if area is vented to outside.
- Moisture reading should be taken prior to carpet and vinyl application. Moisture reading should be less than 5.5%.
- The bulked up area can be finished integral with Normal Set Bulk 30 by reducing the water content and topping over with the less fluid material when the bulked up area has stiffened sufficiently.

Performance Properties

Typical Compressive Strength

Tested in accordance with AS1012.9 at 20C and AS2073

| Age | Compressive Strength |
|---------|----------------------|
| 1 day | 10-15 Mpa |
| 28 days | 30-35 Mpa |

Typical Flexural Strength

Tested in accordance to ASTM C348 at 20C

| Age | Flexural Strength |
|---------|-------------------|
| 28 days | 3-6 Mpa |

Typical Flowability

Tested in accordance to BS890 flow cone at 20C

| | |
|------|-----------|
| 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 20C

| | | |
|-------------|-----|-------------|
| Initial Set | 20C | 60 minutes |
| | 30C | 50 minutes |
| Final Set | 20C | 90 minutes |
| | 30C | 120 minutes |

Typical Working Time

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

Application Thickness

| | |
|---------|---------------------|
| Minimum | Feather Edge |
| Maximum | 300mm + application |

Fresh Wet Density

1850kg/m³ 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) Zero to 300+ | <10mm 12-18 hours >10mm 24 hours |
| Check Moisture Content | 5.5% prior to installation of other materials |

Application Temperature

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

Maximum Water Requirement per 20kg Bag (See Mixing)

4.1 litres for topping finish bulking base
5 litres must be pumped to maintain volume.

Packaging

Normal Set Bulk 30 is supplied in a 20kg polylined bag.

Coverage

The approximate coverages are obtained if mixed in accordance with recommended procedures and accurately measured water content. At 4.1 litres of water.

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

Average 50mm x 1 sqm thickness consumes 70kg of 6-14mm washed, dried and rounded stone. 2.5 bags of Normal Set Bulk 30 pumped material for the bulked area and the 4-5mm topping.

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, curing agent or laitance should be removed by light scabbling or mechanical captive shot blasting. Followed by vacuuming to remove debris and dust. Large cracks or holes may be filled using equal parts of Normal Set Bulk 30 and clean fine sand made up to a trowellable consistency.

Ensure the substrate is primed with Primer SL prior to carrying out application. New concrete floors must be at least 14 days old prior to application of Normal Set Bulk 30. Note: - New concrete floors need to be less than 5.5% moisture content prior to Normal Set Bulk 30 application. If this cannot be achieved use Moisture Barrier.





Priming

Prime clean dust free concrete substrate with Primer SL Primer using a brush, broom or roller. Allow primer to reach a tacky consistency before applying Normal Set Bulk 30.

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 4-5m²/litre per coat.

DO NOT APPLY Normal Set Bulk 30 TO UNPRIMED SURFACE

Do not allow dust film to cover primed area prior to application of Normal Set Bulk 30. If this occurs the area must be reprimed with Primer prior to proceeding with application of Normal Set Bulk 30. 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

Normal Set Bulk 30 requires 4.1 litres of water. To a clean mixing bucket, add the Normal Set Bulk 30 powder to the pre-measured water ensuring product is being mixed during powder addition. When all the Normal Set Bulk 30 is added to the water, mix for a further 2-3 minutes until a smooth homogeneous consistency is obtained. Normal Set Bulk 30 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

Normal Set Bulk 30 must be mixed with a mechanical forced action mixer with high shear stirrer.

DO NOT ADD EXCESS WATER

Discard any material that has 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 Normal Set Bulk 30; 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 Normal Set Bulk 30 has dried. For very large areas Normal Set Bulk 30 can also be applied using an automatic pump. (Consult Sure Level office for further information).

Curing

No special curing is required. The addition of water to Normal Set Bulk 30 after it has started to stiffen is not recommended and the product must be discarded.

Precautions

- Normal Set Bulk 30 must not be used in areas subject to occasional or permanent wetting or where back water pressure is likely.
- Normal Set Bulk 30 must not be permitted to come into contact with water at any stage during use.
- Normal Set Bulk 30 is not designed as a wearing course or as a water proofing agent, and should only be used as an underlayment.
- To avoid too rapid drying, protect applied Normal Set Bulk 30 from direct sunlight or drying winds during actual application, and while curing for up to 12 hours.
- If the substrate on to which Normal Set Bulk 30 is applied moves or cracks, reflective cracking will occur in the Normal Set Bulk 30.
- Depending on thickness and ambient temperatures Normal Set Bulk 30 can be covered with flooring materials in 24 hours.
- For large and thick sections it is advised to check the moisture content of Normal Set Bulk 30 prior to application of floor coverings.
- New concrete surfaces must be at least 14 days old prior to application of Normal Set Bulk 30. (refer Application Instructions).
- Concrete substrates should be checked for moisture content prior to application of Normal Set.

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 Sure Level office).

Yields

The approximate yields are obtained if mixed in accordance with recommended procedures and accurately measured water content. A 20kg bag of Normal Set Bulk 30 with 4.1 litres of water will yield approximately 13 litres. 77 bags required per cubic metre. A 20kg bag of Normal Set Bulk 30 will cover approximately 1.2m² at 10mm thick, or 1m² at 12mm thick, or 2.5m² at 5mm thick.

The recommended application thickness ranges from feather edge to 300mm+ in a single application. (For very thick sections greater than 300mm Bulk-Fil may be used or consult Sure Level for further information).

Clean Up

Normal Set Bulk 30 should be removed from tools and equipment with clean water immediately after use.

Storage

Normal Set Bulk 30 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 using any product.

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

Normal Set Bulk 30 is non flammable.

Part Number

SLL1003