

Technical Data Sheet

Bonded Topping

Flexible Self Smoothing Underlay/Overlay



Product

A fast setting, polymer modified self smoothing flexible cementitious underlay/overlay for repairing concrete and masonry surfaces.

Description

Bonded Topping is a quick setting self levelling, cementitious compound. Bonded Topping has been formulated to achieve a smooth flat surface with ease of application and maximum flow with minimal shrinkage or cracking.

Bonded Topping is specifically designed for building up variable thicknesses of uneven concrete floors or repair to concrete floors.

Recommended Uses

- Repairs to damaged concrete or timber surfaces
- where overlay or coating is required to be applied immediately after repair.
- Rapid repairs to concrete and masonry floors.
- Where adhesion is required to concrete underlayment.
- Where carpet and tiles and vinyl sheeting are required to be installed immediately after repair is carried out.
- Applied from feather edge to 15mm thick in a single application.
- For internal and external use

Features & Benefits

- Accepts foot traffic in 1 hour.
- Reinstating large areas in relative short time periods.
- Very fast application.
- Single component product with high strength.
- Installation can be carried out in a single application.
- Rapid Curing.
- Can be applied directly onto prepared concrete.
- Eliminates the need for sand and cement screeds.
- Excellent adhesion to surfaces

Performance Properties

Mixing Consistency

The table is a guide to the typical water addition requirements for various consistencies. Litres of water per 20kg bag

	Trowellable	Flowable
Range	2.6 - 3.0	3.2 - 3.8

Typical Compressive Strength

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

Age	Compressive Strength
1 day	5-10 Mpa
28 days	30-40 Mpa

Typical Flexural Strength

Tested in accordance to ASTM C348 at 20C

Age	Flexural Strength
28 days	>3-6 Mpa

Typical Bond Strength

Tested in accordance to ASTM C882

Age	Bond Strength
28 days	>5 Mpa

Application Thickness

Minimum	Feather Edge
Maximum	15 mm

Typical Setting Times

Vicat setting times at 20°C

Initial Set	20°C	40-60 Minutes
	30°C	30-40 Minutes

Typical Working Times

Temperature	Time (minutes)
20°C	20 - 30 Minutes
30°C	15 - 20 Minutes

Application Temperature

Minimum	20°C
Maximum	30°C

Yields

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

Thickness	Area m ² per 20kg bag
2 mm	10.0
5 mm	2290
10 mm	100

Packaging

Sure Set Bonded Topping is supplied in a 20kg polylined bag.

Application Instructions

Substrate and Surface Preparation

Excess bitumen, adhesive or laitance should be removed by light scabbling or mechanical captive shot blasting. Followed by vacuuming to remove debris and dust. Where bonding is critical, the substrate may be primed with Bonded Topping Primer prior to carrying out application. New concrete floors must be at least 14 days old prior to application of Bonded Topping.

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Priming

Priming is not required under most circumstances as the product is formulated with bonding agents. Where bonding is critical and the substrate is very porous or proper surface preparation has been difficult to obtain, one or two coats of Bonded Topping Primer may be applied with a brush, broom or roller. Allow the primer to reach a tacky consistency before applying Bonded Topping.

DO NOT DILUTE PRIMER

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

Extremely porous substrates may require a second coat of primer. If a second coat is required allow the first coat to dry prior to application of consecutive coat. Apply Primer at 4-5m²/litre per coat.

Where bonding is critical do not allow dust film to cover primed area prior to application of Bonded Topping. If this occurs the area must be reprimed with Bonded Topping Primer prior to proceeding with application of Bonded Topping.

Mixing

Bonded Topping requires up to 3.8 litres of clean fresh water to produce a smooth, free flowing mix. However, if a trowellable consistency is required the amount of water should be reduced to between 2.6 - 3.0 litres per 20kg bag of powder. Ensure product is mixed for a minimum of 4 minutes.

DO NOT MIX BY HAND UNLESS QUANTITY IS LESS THAN 2-3KG.

Bonded Topping should 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. Do not mix more Bonded Topping than can be reasonably laid within the specified initial set time.

Placing

Pour the mixed material on the prepared substrate and allow material to seek its own level. Material may be spread with a steel trowel, spreader or squeegee depending on the mixing consistency. Keep the trowel slightly inclined to obtain desired thickness. To ensure uniform consistency and uniform continuous flow application of Bonded Topping, 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 Bonded Topping has dried. If an overlay is required such as an additional layer of Bonded Topping over the existing layer, the surface should be reprimed for maximum bonding, with Bonded Topping Primer. This may be done immediately after Bonded Topping has reached initial cure.





Application of Coating

Bonded Topping when cured has good resistance to water. However, if areas are subject to chemical attack from solvents or organic acids etc, Bonded Topping may need to be protected. To ensure a long lasting surface under aggressive chemical conditions, it is recommended that suitable protective coatings be applied. The first coat should be applied as soon as Bonded Topping has dried but no sooner than 24 hours after application.

Curing

No special curing is required. The addition of water to Bonded Topping after it has started to stiffen is not recommended and the product should be discarded.

To prevent and avoid rapid drying during application ensure materials are kept at 20-25°C. This will allow for extra working time. The higher the temperature the shorter the working time. Bonded Topping is not designed as a heavy duty wearing course and will accept pedestrian and light vehicle traffic. The recommended application thickness ranges from 5mm to 15mm in a single application. (Consult Sure Level office for further information).

Precautions

- If the surface on which Sure Level Bonded Topping is applied moves excessively or cracks, reflective cracking may occur in the Sure Level Bonded Topping. However, the adhesion of Sure Level Bonded Topping will be sound.
- Bonded Topping must not be permitted to come into contact with water at any stage during application.
- New concrete surfaces must be at least 14 days old prior to application of Sure Level Bonded Topping.

Substrates

For concrete substrates subject to rising damp or moisture, a water proof membrane barrier coating is required. It is recommended that Sure Level 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 Bonded Topping with 3.6 litres of fresh water will yield approximately 11 litres. 91 bags required per cubic metre.

Clean Up

Bonded Topping should be removed from tools and equipment with clean water immediately after use.

Storage

Bonded Topping 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

Bonded Topping is non flammable.

Part Number

SLF3013

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