



Technical Data Sheet

Normal Set NZE 30

Floor Smoothing Underlay



Product

Normal Set NZE 30 is a self levelling modified cementitious underlay.

Description

Normal Set NZE 30 is a rapid hardening self levelling single component cementitious underlay. Normal Set NZE 30 has been formulated to achieve a smooth flat surface with ease of application and maximum flow without any shrinkage or cracking when used as an underlay for floor coverings.

Recommended Uses

- Underlayment for floor coverings such as carpet, ceramic tiles, etc.
- Fast repairs of uneven concrete floors.
- Residential, commercial and medium industrial application.
- Application thickness of feather edge to 30mm in a single application.
- New construction and refurbishment projects.
- Flat smooth surfaces over existing concrete slabs.
- Levelling existing uneven concrete floors.
- Embedment of electric cables and ducting.

Features & Benefits

- Accepts foot traffic within 2 hours at 20 C.
- Reinstating large areas in relative short time periods.
- Very fast application.
- Dimensionally stable.
- Single component product.
- Installation can be carried out in one application.
- Rapid curing.
- Can be applied directly onto prepared concrete or timber floor surfaces.
- Eliminates the need for sand and cement screeds.
- Floor covering can be applied next day subject to moisture check.

Performance Properties

Typical Compressive Strength

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

Age	Compressive Strength
1 day	8-13 Mpa
28 days	22-28 Mpa

Typical Flexural Strength

Tested in accordance to ASTM C348 at 20C

Age	Flexural Strength
28 days	2-4 Mpa

Typical Flowability

Tested in accordance to BS890 flow cone at 20C

Flow	200-300mm
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Typical Bond Strength

Tested in accordance to ASTM C882

Age	Bond Strength
28 days	> 4 Mpa

Typical 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

Typical Working Time

Temp	Time
10 C	40-50 minutes
20 C	20-30 minutes
30 C	15-20 minutes

Application Thickness

Minimum	Feather Edge
Maximum	30mm

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)	<10mm 12-18 hours >10mm 24 hours
Check Moisture Content	Max 5.5% prior to installation

Application Temperature

Minimum	5 C
Maximum	30 C

Maximum Water Requirement per 20kg Bag (See Mixing)

4.1 litres and 3.6 litres when enhanced with 1 litre SL Primer when used over sound well seasoned timber substrates.

Packaging

Normal Set NZE 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.

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

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 NZE 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 NZE 30.

Note: - New concrete floors needs to be less than 5.5% moisture content prior to Normal Set NZE 30 application. If this cannot be achieved use Moisture Barrier.

Softwood or hardwood solid timber floors must be clean and free of coating such as wax, or oils or entrained oils or other sealants that may form a barrier to adhesion.

Larger timber floor areas must be covered with 4.5mm cement sheet to provide a sound substrate for Normal Set NZE 30 and any embedded electrical elements.





Priming

Prime clean dust free concrete substrate with Primer SL Primer using a brush, broom or roller. Allow primer to reach a dry film consistency before applying Normal Set NZE 30. Hardwood or softwood timber floors must be given 2 primer coatings - the second coating after the first has fully penetrated the timber.

Note: Particle sheet flooring can **only** be primed with neoprene primer to provide adequate bonding to the impregnated surface.

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 OVER DILUTE PRIMER**

DO NOT APPLY Normal Set NZE 30 TO UNPRIMED SURFACE

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

Mixing

Normal Set NZE 30 requires a minimum of 3.7 litres and a maximum 4.1 litres of water. Lesser additions of water will markedly reduce the flow characteristics as well as accelerating the set and reducing the working time. These characteristics can be useful when smoothing sloping surfaces.

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

Normal Set NZE 30 may be used over small areas of sound timber floors. To achieve maximum adhesion Normal Set NZE 30 will require the addition of 1 litre of **undiluted** SL Primer with a maximum of 3.6 litres of water. The water content may be reduced by up to 0.4 litres should lesser flow and faster setting characteristics be required.

DO NOT MIX BY HAND

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

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 NZE 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 NZE 30 has dried. For very large areas Normal Set NZE 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 NZE 30 after it has started to stiffen is not recommended and the product must be discarded.

Precautions

- Normal Set NZE 30 must not be used in areas subject to occasional or permanent wetting or where back water pressure is likely.
- Normal Set NZE 30 must not be permitted to come into contact with water at any stage during use.
 - Normal Set NZE 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 SL NZ 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 NZE 30 is applied moves or cracks, reflective cracking will occur in the Normal Set NZE 30. Tongue and groove flooring should be overlaid with suitably attached compressed cement sheet.
 - Depending on thickness and ambient temperatures Normal Set NZE 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 NZE prior to application of floor coverings.
 - New concrete surfaces must be at least 14 days old prior to application of Normal Set NZE 30. (refer Application Instructions).
 - Concrete substrates should be checked for moisture content prior to application of Normal Set NZE.
 - Timbers with high natural oils will not bond to Normal Set NZE 30.

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 NZE 30 with 4.1 litres of water will yield approximately 13 litres. 77 bags required per cubic metre. A 20kg bag of Normal Set NZE 30 will cover approximately 1.3m² at 10mm thick, or 1m² at 13mm thick, or 2.6m² at 5mm thick.

When Normal Set NZE 30 is enhanced with 1 litre of undiluted SL Primer, yield will increase by approximately 0.5 litres of volume.

The recommended application thickness ranges from feather edge to 30mm in a single application. (For very thick sections greater than 30mm Bulk-Fil may be used or consult Sure Level for further information).

Clean Up

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

Storage

Normal Set NZE 30 has a shelf life of approximately 10 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. As silica dust is present in this product, 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 its discretion, to the replacement of the goods or the supply of equivalent goods.

Fire

Normal Set NZE 30 is non flammable.

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