

# SELF LEVELLING UNDERLAYMENT FOR INTERNAL AND EXTERNAL APPLICATIONS

# 133 PRO LEVEL

S U R F A C E P R E P A R A T I O N

# LANKO

## DESCRIPTION:

LANKO 133 Pro Level is a cement based, internal/external, self-levelling, high strength underlayment designed for levelling floors. Lanko 133 Pro Level can be feather-edged and has properties similar to that of concrete and depending on the application eliminates or minimises trowelling. It requires the addition of only potable water to achieve a highly fluid consistency producing a smooth, level, and hard surface. Lanko 133 Pro Level can be applied in multiple layers with each layer being no more than 25mm thick or can be economically extended with a graded aggregate to fill greater depths.

## USES:

Lanko 133 Pro Level is used to repair, fill or level surfaces in new construction or for corrective work. It is suitable for internal and external applications. Lanko 133 Pro Level is suitable for use in wet areas, but is NOT suitable for use in permanently immersed situations. Lanko 133 Pro Level is used as a sub-floor underlayment prior to installation of carpet, tiles or other floor covering systems. It is compatible with commonly used adhesives and normally can receive floor coverings within 16-18 hours of installation. Lanko 133 Pro Level is not a wearing surface and must be protected with a compatible topping, floor covering or coating.

## TEST DATA

Test Method	Criterion	Typical Test Result
<b>ASTM C191</b>		
Initial Set Time		60 - 75 mins
Final Set Time		75 - 90 mins
Reflow Time		10 -15 minutes
Foot Trafficable		3 – 5 hours @ 20°C
Ready to Receive Floor Coverings		16 – 18 hours @ 20°C
<b>ASTM C109 AS/NZS 2350.11 – 1997</b>		
Compressive Strength	1 day	8.9 MPa
	3 days	16.4 MPa
	7 days	29.2 MPa
	28 days	39.2 MPa
<b>ASTM C348</b>		
Flexural Strength, MPa	1 day	2.87 MPa
	7 days	6.44 MPa
	28 days	10.3 MPa
<b>ASTM C190</b>		
Tensile Strength, MPa	7 days	3.6 MPa
	28 days	5.2 MPa
<i>Values presented are typical and not necessarily referenced to create specifications.</i>		

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## SURFACE PREPARATION:

- Surfaces, must be dry, structurally sound, clean, free of dust, dirt, wax, oil, grease, asphalt, mastic, latex compounds, adhesives, paint, gypsum based products, and other contaminants.
- All concrete sub-floors must be fully cured and dry, in accordance with AS1884-1985 (maximum moisture content 5.5% or 70% humidity). They must be free of laitance, loose or deteriorated concrete, curing or form release agents, other contaminants and have a wood float finish. For sub-floors with a high moisture content or subject to rising damp, apply Lanko 531 Epoxy Moisture Barrier. Refer to datasheet for specific instructions.
- Non-porous surfaces, such as power trowelled or steel floated concrete, must be primed with Lanko 531 Epoxy Moisture Barrier or Davco Ultrabond. Alternatively, they can be acid etched or mechanically abraded.
- Deeply contaminated substrates must be abraded to a clean, sound surface or some substrates can be prepared with the use of Davco Ultrabond – a bonding coat for contaminated surfaces. Contact the Lanko Technical Advisory Line for further details on the suitability of Ultrabond over different contaminants.
- Patch large cracks and holes with Lanko 731 or 712 Concrete Repair Mortar.
- Any construction joints in the underlying sub-floor should be carried through the Lanko 133 Pro Level, to avoid cracking.

## SURFACE PRIMING:

- Priming is crucial prior to the application of Lanko 133 Pro Level. It is designed to improve adhesion, extend reflow and greatly reduce pinholing in the finished floor.
- Porous concrete surfaces must be primed with Lanko 124 Ultraprime. Use Lanko 124 Ultraprime directly from the container – do not dilute.
- Under hot, windy conditions (Temp above 30°C), it is essential to wet

down any concrete slabs with clean water prior to priming, so that the primer does not flash dry. After wetting down the floor, do not allow the water to pool or pond on the surface. The substrate should appear matt, with no signs of glistening water evident prior to application of the primer.

- Non-porous surfaces, such as powder trowelled or steel floated concrete, must be primed with Lanko 531 Epoxy Moisture Barrier.
- **Test areas**  
Test areas should be performed in all cases, to assure the suitability of the product for the intended use. This should include the floor finishing/covering.

## MIXING INSTRUCTIONS:

- Electric stirring is required as it produces a much smoother mix. The most efficient method of mixing Lanko 133 Pro Level is by using a  $\frac{1}{2}$  inch or 12 mm heavy duty electric drill (Ideally 600 rpm). Concrete mixers or hand mixing are not suitable methods.
- Add 4.2 to 4.6L of potable water to a clean bucket, and then slowly add the 20kg bag of Lanko 133 Pro Level. Less water may be required for colder temperatures. Mix for 2 minutes, and long enough to provide a smooth, lump free, flowable blend. If foaming and streakiness appear on top of the mixture, Lanko 133 Pro Level is over-watered, and should not be placed on the substrate. More powder may be added immediately whilst mixing to achieve proper consistency.
- When being used in high stress areas, Lanko 133 Pro Level must be gauged with a mixture of 1 part Lanko 753 Acrylic Additive to 2 parts water. Add approximately 5L of this mix to a 20kg bag.
- For large areas requiring fills between 25 and 100mm, add washed, surface dry, graded gravel to the mix. If the gravel is 3 to 8mm, add 10kg of gravel per bag of Lanko 133 Pro Level. If the gravel is 8 to 12mm, add 20kg of gravel per bag of Lanko 133 Pro Level. Mix the Lanko 133 first, and then add the dry aggregate to the

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mixed material. Reduce the water required if the aggregate is damp. The addition of aggregate will severely reduce material flowability. A smoothing layer of Lanko 134 Pro Level Express will be required if aggregate is used. It is very important not to add more than the quantities of aggregate specified above. A subsequent smoothing layer may be required, if aggregate is added to the mix.

- If pumping, mix in an appropriate pre-pump mixer. Do not mix more material than can be used in 10 – 15 minutes. Mix speeds must not be too high; otherwise they will cause aeration.
- Clean mixers and pumps thoroughly after each batch to avoid material build up.
- For any additional mixing instructions not covered above, contact the Lanko Technical Advisory Line.

#### APPLICATION TECHNIQUES:

- Pump or hand pour Lanko 133 Pro Level on to the primed surface. Move it into approximate position with an underlayment spreader, and allow the material to seek its own level.
- Place Lanko 133 Pro Level soon after mixing. It will achieve initial set in approximately 60 -75 minutes, and may be walked on in approximately 3-5 hours.
- Lanko 133 Pro Level must cure 16-18 hours at 20°C before any floor coverings are installed.
- When additional thickness is required, Lanko 133 Pro Level may be layered up to 25mm without aggregate to provide additional depth. The additional layer may be applied directly over the surface as soon as it will support foot traffic. Lanko 124 Ultraprime must be used if more than 24 hours passes before the new material is applied.
- In external applications, special care needs to be taken to protect the product during placement and whilst curing. The product needs to be protected from direct sunlight and high winds to prevent rapid hydration/cure or desiccation (excessive loss of

moisture). This is particularly important when laying thicknesses in excess of 10mm.

- For information about pumping equipment, contact the Lanko Technical Advisory Line.

#### COVERAGE:

One 20kg bag of Lanko 133 Pro Level will yield approximately 0.0115m<sup>3</sup>, and cover approximately:

- 13m<sup>2</sup> at 1mm thickness.
- 6.5m<sup>2</sup> at 2mm thickness.
- 4.33m<sup>2</sup> at 3mm thickness

#### CLEAN-UP INSTRUCTIONS:

- Clean mixing and application equipment with water immediately following use.
- Remove splatter or spills with water before material sets.
- Lanko 133 Pro Level contains cementitious materials, and if allowed to dry, removal becomes extremely difficult.

#### PRECAUTIONS:

- Ensure all surface preparation and priming instructions are followed precisely.
- Construction joints in the sub-floor must be detailed through Lanko 133 Pro Level to prevent cracking.
- Lanko 133 Pro Level should not be over-watered, over-mixed, or re mixed with additional water. Any material over 20 minutes old should be discarded and not used.
- Do not add cement, lime, gypsum, plaster, bonding agents, aggregates or other materials except where specified on this packaging. If unsure, contact the Lanko Technical Advisory Line.
- Do not use Lanko 133 Pro Level over a slab with a high moisture content or that is subject to rising damp, unless Lanko 531 Epoxy Moisture Barrier is used prior. If there is any possibility the sub-floor will be subject to rising damp at a later date, then Lanko 531 Epoxy Moisture Barrier must be used prior.
- Do not mix or apply Lanko 133 Pro Level when temperatures are below

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5°C or above 35°C. Also, do not apply if temperatures are expected to reach these levels for at least 24 hours after application.

- Do not apply Lanko 133 Pro Level over frozen or frost filled surfaces.
- Do not use Lanko 133 Pro Level in applications where it will be subject to permanent immersion.
- Wherever possible, test areas are recommended, to ensure the suitability of the product for the intended use. This should include the floor finishing/covering.

#### HIGH STRESS AREAS:

- When Lanko 133 Pro Level is to be used in areas of high stress or under exacting conditions, special instructions are generally required. For the following situations, please phone the Lanko Technical Advisory Line for specific instructions:
  - Installation over timber flooring
  - fibre cement sheeting
  - metal decks
  - over existing floor coverings, such as ceramic tiles and quarry tiles.
  - any sub-floors subject to movement, vibration, or high loads.
- For applications of Lanko 133 Pro Level over heated sub-floors (ie under floor heating systems), and radiant heated floors, always use with the addition of Lanko 753 Acrylic Additive, gauged 1:2 with clean water (1 Part Lanko 753 : 2 parts water).
- For applications of Lanko 133 Pro Level in wet areas (eg shower recess floors), always use with the addition of Lanko 753 Acrylic Additive, gauged 1:2 with clean water (1 Part Lanko 753: 2 parts water).

#### PACKAGING:

Lanko 133 Pro Level is available in 20kg polylined bags.

#### FLOOR COVERINGS:

As a general guide, the surface finish of Lanko 133 Pro Level is not dissimilar to concrete. Any adhesives used to bond subsequent floor coverings that are

compatible with concrete will be compatible with Lanko 133 Pro Level. Strictly follow the floor covering adhesive manufacturers' instructions.

#### SHELF LIFE / STORAGE:

- Storage: must be stored in a cool, dry elevated place and protected from high humidity.
- Shelf Life: Up to 6 months in unopened bags, if stored as specified above

#### SAFETY:

- Being cement based Lanko 133 Pro Level is alkali in nature, which can cause dermatitis. Thus, when using Lanko 133 Pro Level, it is recommended that applicators wear PVC or similar gloves and safety goggles.
- For a full MSDS on this product, contact the Lanko Technical Advisory Line.

#### TECHNICAL SERVICE:

For application procedures or surface conditions not specified above, please contact the Lanko Technical Advisory Line on 1800 653 347 or visit our website on [www.lanko.com.au](http://www.lanko.com.au).

#### DISCLAIMER:

*The use of this product is beyond the manufacturer's control, and liability is restricted to the replacement of material proven faulty. The manufacturer is not responsible for any loss or damage arising from incorrect usage. All workmanship must be carried out in accordance with Davco's specific instructions.*

*The information contained herein is to the best of our knowledge true and accurate. No warranty is implied or given as to its completeness or accuracy in describing the performance or suitability of the product for a particular application. Users are asked to check that the literature in their possession is the latest issue.*

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