

## FAST SETTING POLYMER MODIFIED RAPID REPAIRS OF DEFECTS IN CONCRETE SUBSTRATES

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

**LANKO**

### DESCRIPTION:

Lanko 136 Rapid Patching Mortar is a ready-to-use polymer-modified rapid setting mortar designed for making repairs to internal concrete and masonry surfaces. It is for use prior to the application of underlayments, flooring, ceramic tiles, coatings or paint etc. Lanko 136 Rapid Patching Mortar has been designed to achieve very high early strengths, and can accept floor finishes after as little as 90 minutes.

### USES:

- Patching concrete floors prior to the application of Lanko floor levelling compounds.
- Patching brickwork and rendered walls prior to ceramic tiling.
- Creation of ramps prior to the installation of carpet, vinyl and ceramic tile.

For repairing minor internal flaws in concrete structures.

- Repair of internal concrete surfaces: honeycombing, stair nosing, precast elements etc.
- For patching of concrete pillars, slabs, posts etc.
- Treatment of chamfers and seams prior to waterproofing.
- Creation of coves in wall/floor junctions prior to application of membranes and epoxy coatings.
- Anywhere where a rapid setting, high early strength patching mortar would be useful.

### TEST DATA:

Test Method	Criterion	Typical Test Result
<b>ASTM C191</b>		
Initial Set Time (At 20°C)		Approx 15 mins
Final Set Time (At 20°C)		Approx 25 mins
Ready to receive subsequent coatings and underlayments		Approx 90 mins
Ready for High Load Installations		3 – 7 days
<i>Values presented are typical and not necessarily referenced to create specifications.</i>		

**SURFACE PREPARATION:**

- For all surfaces, loose contaminants and unsound concrete must be chipped away so that a reasonably rough, but strong sound surface is provided.
- All surfaces must be free from oil, grease and dust.
- Holes and depressions may be cleaned with compressed air, vacuumed, or a suitable brush to remove loose particles.
- Remove loose and damaged concrete and laitance using a point tool or chisel in order to obtain a clean, rough surface
- The boundaries of the surface to be repaired must be clearly defined in order for the patched surface to retain integrity.

**SURFACE PRIMING:**

- After cleaning, wet down porous concrete substrates with water to avoid early hydration of Lanko 136 Rapid Patching Mortar.
- Ensure that no freestanding water is present on surfaces. Remove any free water by use of compressed air or dry towels.
- Dense substrates such as power (steel) float concrete can be prepared via the application of Lanko 531 Epoxy Moisture Barrier or Davco Ultrabond. Alternatively, treat the concrete slab with a 5% solution of Hydrochloric acid prior to patching. Ensure that all unreacted acid is removed via copious amounts of water or neutralised via the use of Bicarb of Soda dissolved in clean water.

**MIXING INSTRUCTIONS:**

- Use as little water as is required in the mix for ease of placement. Water addition is recommended at approximately 4.5 –6.0L per 20kg bag.
- As a guide, add approximately 3 parts by volume of Lanko 136 Rapid Patching Mortar to 1 part of water by volume.
- Adjustments to the mixing ratio may be required depending upon site conditions. Ideally, mixing water and

substrate should be above the lower application temperature limit of 5°C and below 30°C to avoid settling of the mix before initial set. Small trial batches to ascertain the best working consistency for the operation are recommended.

- Place 70% of the required amount of water into the mixing vessel and slowly add the powder while mixing. Gradually add the remainder of the water to achieve the desired consistency. Job placement conditions, including temperature and humidity, may lead to some adjustments in the amount of water addition.
- Mix with an electric drill and paddle or by hand. Allow approximately 2 minutes mixing to achieve maximum results.
- Do not mix more than can be used in 10 - 15 minutes as the product will set.
- Yield will be approximately 14.2L per 20kg bag depending on the amount of water added.

**APPLICATION TECHNIQUES:**

- Apply a first pass of Lanko 136 Rapid Patching Mortar with a steel trowel, pressing firmly to ensure bonding.
- Apply additional mortar to obtain the desired overall thickness.
- After placement, allow Lanko 136 Rapid Patching Mortar to cure for approximately 10-15 minutes before finishing. Use a wet steel trowel or foam float on the repaired surface to achieve the required finish. A light spray of water may help to lubricate the trowel.
- Lanko 136 Rapid Patching Mortar must be placed within 10-15 minutes of mixing. After this time discard any mixed product that shows signs of stiffening.
- Do not vibrate Lanko 136 Rapid Patching Mortar into position as this may cause segregation of the mix.

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### AGGREGATE EXTENSION:

- For repairs between 25mm and 100mm, add up to, but no more than 20kg of washed 2-5mm aggregate, per 20kg bag of Lanko 136 Rapid Patching Mortar.
- For repairs over 100mm in depth, we recommend the use of Rapidex Concrete. This can be used for depths from 50mm – 200mm.

### RETURN TO SERVICE:

- The period of time required before bringing the patched area into service depends upon the service load required. For high load installations, do not put the area into service for 3 - 7 days. The ambient temperature should be taken into account since cold weather delays hardening and hot weather accelerates hardening.
- Subsequent coatings and underlayments may be installed in as little as 90 minutes after the application of Lanko 136 Rapid Patching Mortar.

### COVERAGE/YIELD:

Water Addition per 20KG bag	Yield	KG/m <sup>3</sup> (wet)	Bags per m <sup>3</sup>
5L	14.2L	1,770	71

A 20kg bag of Lanko 136 Rapid Patching Mortar will cover approximately:

- 4m<sup>2</sup> at 3mm thickness.
- 12m<sup>2</sup> at 1mm thickness.

### CLEAN-UP INSTRUCTIONS:

Lanko 136 Rapid Patching Mortar should be removed from tools and equipment immediately after use with clean water. Any cured material may be removed by mechanical means.

### PRECAUTIONS:

- Ensure all surface preparation and priming instructions are followed precisely.
- Lanko 136 Rapid Patching Mortar must be placed within 10-15 minutes of mixing. After this time discard any

mixed product that shows signs of stiffening.

- Lanko 136 Rapid Patching Mortar is not a wearing surface and must be suitably covered if required for this use.
- Lanko 136 Rapid Patching Mortar is not an anti-carbonation external repair mortar. Lanko 731 or Lanko 732 Concrete Repair Mortars are recommended in this case. Lanko 136 Rapid Patching Mortar is for internal use only. Contact Lanko for recommendations regarding external repair mortars.
- For patching thicknesses exceeding 50mm, refer to instructions under heading Aggregate Extension.
- Do not retemper Lanko 136 Rapid Patching Mortar with additional water.
- Like all cementitious mortars and concrete, Lanko 136 Rapid Patching Mortar must be protected against rapid drying due to high temperatures and/or strong winds.
- Lanko 136 Rapid Patching Mortar is not defined as a dangerous good by Australian Code for the Transport of Dangerous Goods by Road and Rail.

### PACKAGING:

Lanko 136 Rapid Patching Mortar is available in 20kg moisture resistant multiwall bags.

### 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 136 Rapid Patching Mortar is alkali in nature, which can cause dermatitis. Thus, when using Lanko 136 Rapid Patching Mortar, it is recommended that applicators wear PVC or similar gloves and safety goggles.

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**136**  
**RAPID PATCHING  
MORTAR**

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

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- 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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