

PENAPATCH PANEL LW

Fire Rated, Light Weight Repair Mortar



DESCRIPTION:

PENAPATCH PANEL LW is a fine-filled, fire-rated, polymer-modified, cementitious mortar specifically formulated to cover joint plates in tilt slab or pre-cast construction, and for general repairs to damaged concrete.

Combining special lightweight aggregates, select cements and polymers, PENAPATCH PANEL LW allows for builds up to 100mm while providing solid adhesion to concrete and masonry with negligible shrinkage. PENAPATCH PANEL LW requires the addition of water only, and may be sanded to produce a smooth surface texture before painting or application of render.

FEATURES AND BENEFITS:

- Australian-made
- Suitable for applications up to 50mm on vertical surfaces
- Good adhesion to substrates, high bond strength
- High build repairs can be completed in one application
- Eliminates the need for formwork
- Shrinkage compensated, resulting in long-term dimensional stability
- Excellent workability
- Compatible with the RLA range of protective coatings and conventional decorative coatings
- Fast drying.
- Finishes off to a smooth surface.
- Easy to use- add water.
- Four-hour fire rating to AS1530.4 applied at 35mm

RECOMMENDED USE:

- Patching repairs and covering metal joining plates in tilt-up or pre-cast panels.
- Repairing any damaged concrete or pre-cast or non-structural tilt-up panels.
- Repairs requiring build applications up to 50mm to vertical surfaces
- General high build-up repairs where a non-structural repair mortar is required.

SURFACE PREPARATION:

Surfaces must be free of oil, grease, dust, plaster, paint and all other contaminants which may inhibit the bond of PENAPATCH PANEL LW to the substrate. Any cracked or weakened concrete to be removed to provide a solid foundation before being repaired. Scabbling or water blasting should be used to remove laitance and provide a mechanical key.

Concrete should be broken out to expose all rust-affected/corroded steel reinforcement. If any corroded steel is present, remove all loose scale and corrosion/rust deposits. Grit blasting effectively removes corrosion, and all steel, including re-bars, should be cleaned to a bright condition. Prime all exposed steel with [RLA ZINC PRIMER](#) to stop further oxidation and corrosion. Damaged sections of reinforcing bars should be removed and replaced.

It is recommended that a minimum depth of 5mm be prepared for large areas to avoid excessive feather edging or skim coating. Saw cut to delineate all edges of the section to be repaired. Break concrete out if necessary and to ensure a minimum depth of 5mm is achieved

New concrete surface/substrates to be cured at least 21 days before application of PENAPATCH PANEL LW

PRIMING:

CONCRETE/MASONRY

Surfaces to be pre-soaked with fresh clean water.

Important: Ensure no excess or free standing water remains as this can reduce bond strength

Note: For highly porous surfaces RLA recommends the application of [RLA RENDERGRIP A](#) prior to pre-soaking with water. This is to assist with reducing flash drying of fairing coat mortar and to retain workability.

STEEL/REBAR:

Remove all loose corrosion deposits on steel. Steel should be cleaned to a bright condition. Prime steel with [RLA ZINC PRIMER](#) and allow to dry

Note: Primer to be completely dry before applying PENAPATCH PANEL LW

MIXING:

- PENAPATCH PANEL LW can be mixed using a forced action drill mixer with a high-shear spiral mixing paddle
- Use **3.1 - 3.6 litres of water per 10kg bag** of PENAPATCH PANEL LW
- Place water into a clean pail and slowly add powder to the water while mixing on slow/medium speed. Continue mixing until a smooth, soft mortar consistency is formed

Important:

- Always add the powder to the liquid while mixing slowly to avoid lumps
- Only mix that quantity of material that can be used within the setting time
- Do not attempt to rework or re-temper partially set product
- Excess water will increase the sag and reduce build up of the mortar.
- Excess water will reduce the final strength and extend drying time

APPLICATION:

- Apply the mixed PENAPATCH PANEL LW to the substrate using a trowel or gloved hand to give the required finished thickness.
- Thoroughly compact the mortar into the prepared substrate and around the exposed steel reinforcement and re-bars.
- A smooth surface can be obtained using a steel trowel.

Important:

- Do not overwork the surface
- Do not apply PENAPATCH PANEL LW in areas less than 5mm thick. Occasional thickness less than 5mm is acceptable only in localized areas

LOW-TEMPERATURE APPLICATION:

Do not apply at temperatures below 5°C and falling. In cooler conditions, the use of warm water as the mixing liquid is recommended

HIGH-TEMPERATURE APPLICATION:

Do not apply at temperatures above 35°C as this will cause rapid setting/premature drying and affect workability of the product. In warmer conditions, the use of chilled/cold water as the mixing liquid is recommended

CURING:

RLA recommends the application of [RLA RENDERGRIP A](#) as a curing agent over repairs applied in warmer conditions, and applications subject to direct sun or strong winds to reduce premature drying/setting

CLEAN UP

Clean all equipment with water immediately after use. Cured PENAPATCH PANEL LW can only be removed by mechanical means.

SHELF LIFE / STORAGE

- 12 months when stored in original unopened packaging
- Best stored in a dry area at room temperature
- Keep off cold floors and out of direct sunlight

PACKAGING

- 10 Kg bags

LIMITATIONS:

- PENAPATCH PANEL LW is recommended for repairs in vertical and overhead applications
- PENAPATCH PANEL LW is not recommended for load bearing and is not to be used as structural repair mortar
- PENAPATCH PANEL LW is not designed or recommended for pedestrian or vehicle traffic
- Addition of excess water other than specified will lead to extended cure times and low-strength development
- If the substrate into which the PENAPATCH PANEL LW is applied moves or cracks, reflective cracking will transfer through the mortar
- New concrete surface/substrates to be cured at least 21 days before application of PENAPATCH PANEL LW.
- For applications in warmer conditions, in high winds or exposed areas, ensure curing compound is applied after the final trowel
- Protect from direct sunlight/ heat
- Ensure PENAPATCH PANEL LW does not come into contact with water or rain for a minimum of 24 hours

HEALTH & SAFETY

For information and advice on the safe handling, first aid, storage and disposal of chemical products, users must refer to the most recent Safety Data Sheet (SDS) containing physical, ecological, toxicological and other safety-related data.

TECHNICAL DATA:

PRODUCT INFORMATION:		
Colour	Light Grey Powder	
Fresh Wet Density (kg/dm³)	900kg/m³	
Shelf life	12 months	
Packaging	10kg Poly-lined Bags	
Bags per cubic metre (m³)	66	
Application Temp	Min 5°C-Max 35°C	
Coverage – (Kg/m²/mm)	1.85	
Water per 10kg bag	3.5 litres	
Yield per bag (litres)	15	
PERFORMANCE DATA:		
FLEXURAL STRENGTH MPa- TESTED TO ASTM C348-86 @20°C		
1 day	3.0	
7 days	5.0	
28 days	7.1	
COMPRESSIVE STRENGTH MPa- AS1012&AS2073 @20°C & 50% RH		
1 day	4.0	
7 days	18	
28 days	20	
SETTING TIMES 20°C		
Initial	3 hours	
Final	5 hours	
APPLICATION INSTRUCTION		
	Vertical	Overhead Soffits
Minimum	5mm	5mm
Maximum	50mm	100mm
Youngs Modulus approximately 26GPa Co-efficient of thermal expansion 7-10x106mm/°C		

WARRANTY STATEMENT:

RLA Polymers guarantees this product against manufacturing defects and guarantees it to be manufactured to our published specification.

We certify that this product is suitable for use when fully cured and will perform as described in our technical data sheet or other published materials.

RLA Polymers will replace the product free of charge when purchased from any legally verifiable source and where a product is proven to have been stored, handled, and install according to instructions published on our packaging and within the stated shelf life. The Installation of all materials must be carried out in accordance with the relevant Australian Standard and the Floorcovering Manufacturer's instructions, and the floorcoverings must have been subject to normal traffic conditions.

Warranty doesn't apply if damage, loss, failure to follow instructions, or other circumstances are out of our control.

Sufficient time and access to investigate any complaint must be accorded to RLA Polymers.

The consumer is responsible for any expenses incurred in making a claim.

A claim form can be requested by:

PHONE: 1800 242 931

EMAIL: info@rlapolymers.com.au

MAIL: 215 Colchester Road Kilsyth Victoria 3137
(Attention Customer Service)

WEBSITE: www.rlapolymers.com.au

AUSTRALIAN CONSUMER LAW:

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality, and the failure does not amount to a major failure. The benefits under our warranty are in addition to other rights and remedies available to the consumer under the law in relation to the goods and services to which the warranty relates.

DISCLAIMER:

All statements and technical information contained herein are based on tests we believe to be reliable, but the accuracy thereof is not guaranteed.

Users assume all risk and liability resulting from the use of the product and must confirm the suitability thereof by their own tests. Conditions of Sale contain a limited warranty against manufacturing defects.

Version: 01

Issue date: 05/09/2023

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