

**TECHNICAL DATA – MOISTURE SEAL**

# Moisture Seal

## Solvent free epoxy coating waterproofing system

**DESCRIPTION:**

RLA Moisture Seal is a high performance 2 part epoxy waterproofing system designed as a water and vapour proof coating under water proofing systems, coatings, tiles and Timber flooring. It is designed for floor and wall applications where durability, water and chemical resistance are required.

**RECOMMENDED USES:**

- Primer for damp Surfaces
- Water proofing system particularly in areas where hydrostatic pressure is an issue.
- Sealing concrete slabs before vinyl and timber overlays
- Primer of Scyon sheeting
- Primer for acrylic and polyurethane waterproofing membranes
- Primer for RLA tile adhesives.
- Dust sealing for interior concrete floors
- Retaining Walls
- Planter boxes
- Concrete Tanks
- Lift Wells
- Basements
- Reservoirs , Aquaducts
- Underground Carparks
- As a Basecoat coating in areas requiring seamless epoxy flooring

**FEATURES & BENEFITS:**

- Australian Made
- Low VOC
- Convenient mixing ratio 1:1
- Withstands a head of Water Pressure up to 25 metres or 250Kpa
- Complies with AS 4020:2005 "Products in contact with drinking water"
- Complies with ASTM E96 Water vapour transmission
- Water based and user friendly
- Potable Water Approval

## TECHNICAL DATA – MOISTURE SEAL

### APPLICATION PROCEDURE:

#### Substrates:

##### Suitable for:

- Concrete
- Precast and tilt up concrete
- Masonry
- Compressed Fibre Cement Sheet
- Structural plywood
- Primed metal

#### Surface Preparation-

- All surfaces to be treated must be structurally sound and all previous coatings, adhesives, efflorescence or laitance should be removed by high pressure water blasting, mechanical scrubbing, grinding or other suitable means.
- All surfaces must be cleaned free from dirt, grease, oil or other surface contaminants.
- Holes, non-structural cracks and other surface deformities should be repaired using Rapid Patch in accordance with the technical data sheets.
- Very porous or 'boney' concrete may require 3 coats of Moisture Seal. The first coat acting as a primer, penetrating into the pores of the concrete.
- Ensure re-coat times are adhered to between applications (refer to precautions). A minimum of 2-3 hours is required between coats, preferably overnight if temperature is below 20°C.

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### **MIXING:**

Re-stir parts A and B separately, and then combine the entire contents of part B with Part A using an electric mixer with a high shear paddle.

**ONLY MIX WHAT CAN BE USED IN THE POTLIFE OF THE MIXED PRODUCT.** For smaller mix volumes, mix Part A and Part B in equal volume ratios 1:1

Care should be taken to ensure that **RLA Moisture Seal** is thoroughly mixed.

Mix for no less than 3 minutes until a uniform colour is obtained; the sides of the container should be scraped to ensure all material is incorporated, and mixed for a further 2 minutes.

**DO NOT OVER MIX AS THIS MAY INCORPORATE AIR BUBBLES.**

- Mixing should be by means of a mechanical forced action mixer with a high shear stirrer.
- Premix each individual component to form a homogeneous paste.
- Combine the two components by equal volume mixing thoroughly for a minimum of 3 minutes until a homogeneous blended paste is obtained.
- Avoid trapping air during mixing; this may cause pin holing in the coating during application.
- Only mix as much as may be used within the pot life of the product.

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### **TIMBER FLOORING INSTALLATION:**

- As a low vapour transmission barrier on concrete floor slabs to prevent moisture migration and subsequent swelling of timber flooring systems (mandatory if moisture content of slab exceeds 5.5% or 70% relative humidity).
- Highly recommended for use prior to any application of timber floors.
- As a moisture barrier on concrete prior to application of timber flooring or floor leveling compounds.
- As a moisture barrier on the negative side in below ground substrates such as retaining walls, car parks, basements access shafts.

### **BUILDING & CONSTRUCTION APPLICATION:**

- As a low pressure head, water transmissions vapor barrier coating to prevent moisture vapour penetration through ground floor slabs.
- To prevent water seepage and permeation through exterior walls and floors.
- As a highly tolerant moisture and vapor barrier in water storage tanks, tanking applications, reservoirs and swimming pools.
- As a curing compound coating over freshly laid (green) concrete.
- As an excellent vapour barrier coating prior to the application of the building products such as cementitious repairs, screeds, epoxy floor toppings and coatings.
- Also suitable for use with commercial paints, tiling systems, and soft and hard floor coverings.
- Safe to use in sensitive locations (e.g., around food or habitable areas).

### **COATING APPLICATION PROCEDURE**

- Moisture Seal is a minimum 2 coat system. The coverage rate as specified must be achieved to ensure transmission barrier and low permeability is obtained.
- In all applications of Moisture Seal, it is critical that a final, dry film coating thickness of 200 microns is achieved. Dry thickness (wet film) less than this will compromise the effectiveness of the moisture barrier.
- Applying with a brush or roller, ensure to work the material into the substrate surface to fill voids and eliminate pin holing.
- During the curing process, Moisture Seal will experience approximately 50% evaporation loss from each coating application. (Wet 200 microns will dry to approx. 100 microns).
- As application progresses, test the coating depth at random points with a wet film gauge/ comb to 200 microns. **DO NOT APPLY LESS THAN 200 MICRONS.**
- Applying the two coats with this method, and allowing for the evaporation loss, the final dry film thickness should be achieved as specified.
- Extreme care is necessary, and if required, protection should be provided to ensure RLA Moisture Seal is not damaged in any way between or after final coating.

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### **COVERAGE:**

**RLA Moisture Seal** is designed to be applied in two coats to achieve a minimum, finished, dry film thickness of 200 microns. Apply the first coat at 4-5m<sup>2</sup>/ litre (square metres per litre). Second coat at 4-5m<sup>2</sup>/ litre. Coverage is dependent on surface porosity and substrate conditions.

### **IMPORTANT NOTES:**

- Moisture Seal cure rates will be dramatically reduced if relative humidity is above 80%.
- Moisture Seal should never be diluted.
- Do not apply to steel or metal surfaces as corrosion will occur.
- Moisture Seal is not trafficable and must be covered with floor toppings, coatings or conventional coverings prior to foot or vehicle traffic introduction.
- In enclosed areas, such as water tanks or reservoirs, ventilation should be provided during curing cycle to enable adequate evaporation of the coating.
- Allow to cure for a minimum of 24 hours at 25°C/50% R.H. before applying adhesives, mortars, decorative coatings or other surface treatments.

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- Moisture Seal will tend to discolour and turn yellow when exposed to UV light.
- Discard any material that has exceeded the pot life or working time of the product.
- Do not apply over any substrates that have been previously treated or coated with curing compounds, PVA concrete bonding agents or acrylic coatings. These areas must be mechanically cleaned by grinding or shot blasting to produce a contamination free surface.

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### FLOOR LEVELLING APPLICATION:

- Where a floor levelling compound is to be used over Moisture Seal, allow the two coats of Moisture Seal to dry for a minimum of 24 hours at 25°C/50% R.H. Prime with a non-porous primer such as RLA Universal Primer as per specifications (refer to Technical Data Sheet) and allow to dry for 1-2 hours before applying the selected Floor levelling product from the RLA range.
- Moisture Seal cure rates will be dramatically reduced if substrate surface or ambient temperature is below +10°C.
- If Moisture Seal is applied in cold or cooler climatic conditions, substrate temperatures can produce amine blush, resulting in an oily residue and/ or areas of uncured tacky discolouration (usually off white or yellow)
- If amine blush or any other form of surface contamination or discolouration appears on the coating, Moisture Seal should be allowed to cure and then be washed with clean fresh water.
- Ensure thorough removal of contamination prior to the application of any further coating. This will eliminate possible delamination between coatings.
- Follow the mixing instructions exactly. Mixing slightly longer (e.g. extra 1 minute) after homogeneous paste is obtained is better than under mixing
- In cold temperatures less than 10°C, allow the product to stand for approximately 5 minutes after mixing this will assist in accelerating the drying reaction.
- In extremely cold conditions, it is recommended that you ensure the Moisture Seal is conditioned to 20°C prior to use.
- If possible, store the Moisture Seal in a 20°C environment 24 hours prior to use.
- If substrate surface area is less than 5°C apply by air blower or use a fan after application, this will assist in obtaining efficient curing efficiency.
- Ensure adequate room ventilation on completion of coating.

### PAINTABLE:

Compatible with most conventional, commercially available paints, industrial surface coatings such as epoxy, acrylic, polyurethane and polyester. To ensure compatibility of any coating, it is recommended that a trial or test area be conducted.

### IMPORTANT NOTES:

RLA Moisture Seal when mixed in large volumes, greater than 10 litres is highly likely to cure faster reducing the pot life of the mixed material in the tin.

**Low temperature working:** the minimum application temperature is 5°C. In temperatures below 10°C, the separate components should be heated in warm water (up to 25°C) or stored in a temperature controlled environment for 12 hours before use.

**High temperature working:** at ambient temperatures above 30°C, the material should be stored in the shade or in an air-conditioned environment for 12 hours before use.

**RLA Moisture Seal** cure rates will be dramatically slowed if the relative humidity is above 85%. Do not add cementitious products to accelerate drying

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TYPICAL PROPERTIES	
Colour/s	A: White B: Grey
Appearance (mixed)	Brushable/ rollable uniform paste. Grey colour
Finish	Satin/ Matt
Flammability	Product is non-flammable and poses no fire risk
Mixing Ratio	1:1 (component A:B) by volume
Pot Life	1 hour at 35°C 2 hours at 25°C
Re-coat time	3-4 hours @ 25°C & 50% RH depending on concrete porosity
Water vapour barrier permeance	0.12g/24 hrs/M <sup>2</sup> mmHg @ 32°C and 50% RH
Full Cure	5-7 days @ 25°C and 50% RH
Dry Film Thickness	100 microns (approx.)
Application of adhesive/ coverings	24 hours @ 25°C & 50% RH
Specific Gravity	Approx. 1.25 @ 25°C & 50% RH
Wet Film Thickness	200 microns
Coverage	4-5m <sup>2</sup> /Litre

### **PACKAGING:**

4 litre kit (2 litres Part A, 2 litres Part B)  
 8 litre kit (4 litres Part A, 4 litres Part B)  
 20litre kit (10 litres Part A, 10 litres Part B)

### **CLEAN UP:**

Wash all equipment in soapy water immediately on completion. **RLA Moisture Seal** will cure under water.  
 Do not leave items soaking

### **SHELF LIFE:**

12 months in an unopened container stored above 5°C

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### **PRECAUTIONS:**

Refer to SDS prior to use.

- Avoid contact with skin and eyes – always wear protective clothing including gloves. Use of a barrier cream on hands prior to commencement is recommended
- Ensure adequate ventilation and avoid breathing vapours
- Keep away from children
- If swallowed do not induce vomiting, give plenty of milk and water – SEEK MEDICAL ADVICE
- For more detailed information refer to the SDS (I Safety Data Sheet)

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### **TECHNICAL SUPPORT:**

RLA Polymers manufactures a comprehensive range of high quality, high performance construction products. In addition, RLA Polymers offers technical support and on-site advice to specifiers, end users and contractors. Please contact your RLA Polymers sales representative or RLA Head Office for this service

<b>Product:</b>	<b>RLA MOISTURE SEAL</b>
<b>Issue Date:</b>	<b>MAR 19</b>
<b>Issue No:</b>	<b>D01</b>
<b>Item No Pt A:</b>	<b>14455A</b>
<b>Item No Pt B:</b>	<b>14456B</b>

### **DISCLAIMER**

The information and any recommendations relating to the application and end-use of all RLA products are provided in good faith based on RLA's knowledge and experience of the products. In applications, the differences in materials, and variances of substrates and actual site conditions can vary such that no warranty in respect of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be taken as inferred either from this information, or from any written recommendations, or from any other advice offered by RLA. The proprietary rights of third parties must be observed. All orders are accepted subject to our sale terms and conditions. All users should always refer to the most recent and up to date issue of the Technical Data Sheet for the product concerned, which is available on request. It is recommended that products should always be properly stored, handled and applied under tested and recommended conditions.

PLEASE CONSULT OUR TECHNICAL DEPARTMENT FOR FURTHER INFORMATION.