

WPU

HYBRID POLYURETHANE MEMBRANE



DESCRIPTION:

RLA WPU is a versatile one-part polyurethane/acrylic, fibre reinforced water-based membrane developed for high performance waterproofing applications to internal and external areas.

Producing a durable, elastomeric finish, WPU is fully compatible with the RLA range of adhesives and engineered screeds for under tile applications. Alternatively, WPU can be used for external applications as an exposed membrane finish subject to UV and varying climatic conditions as well as light foot and maintenance traffic.

WPU has been independently tested and is compliant to AS/NZ 4858:2004 and AS/NZ 4654.1:2012, satisfying the requirements of AS 3740 and AS/NZ 4654.2 for use in internal and external wet areas as an under tile or exposed membrane finish.

FEATURES AND BENEFITS:

- Class III membrane
- Flexible and elastomeric
- Excellent adhesion to a wide variety of substrates
- Handles permanently wet conditions and water ponding – once cured will not re-emulsify
- Solvent free - Safe and easy to use
- Tough, durable finish
- UV stable with outstanding weather resistance
- Light foot trafficable
- Low water vapour transmission properties
- Compatible surface for direct fixing of tiles and toppings
- Independently tested and certified to AS/NZ 4858:2004 and AS/NZ 4654.1:2012 for internal and external wet areas

USES:

- Internal wet areas, showers, laundries, and bathrooms
- External wet areas, balconies, decks, podiums/terraces
- General tiled areas to prevent moisture ingress
- Rooftops as an exposed membrane subject to occasional/maintenance traffic
- Parapets and external surfaces subject to UV and continuous exposure

SUBSTRATES:

- Concrete
- Render
- Screed
- Masonry
- Compressed fibre cement sheeting
- Plasterboard

NOTE: For suitability over any substrate or material types not listed above, contact RLA Technical Department for confirmation of suitability and surface preparation

SURFACE PREPARATION:

- All surfaces are to be clean, sound, smooth, dry, and free from loose material, dirt, dust, oil, grease, wax residues, curing compounds, release agents, existing coatings, moss, algae, sharp protruding objects and all contaminating materials that could compromise the adhesion of the overlaid membrane system
- Structurally unsound layers and surface contaminants must be mechanically removed.
- Masonry surfaces to be pointed flush, and all surface defects including voids, holes, damaged and pitted sections, cracks and heavy undulations to be filled, made sound and level. Refer to the RLA range of surface preparation aids, surface levellers and repair compounds for suitable options
- All surfaces and substrates must be fit for purpose, constructed and installed to manufacturer's recommendations and relevant building standards in force at time of application
- Concrete to be allowed to cure for at least 28 days, and cement render/sand cement screeds allowed to cure for at least 7 days

PRIMING:

WPU must be applied over primed surfaces:

POROUS/ABSORBENT SURFACES:

RLA POROUS PRIMER

Apply 1-2 coats @ coverage of 1litre/8m² per coat

NON POROUS/ NON ABSORBENT SURFACES:

RLA NON POROUS PRIMER

Apply 1 coat @ coverage of 1litre/10m²

DAMP SURFACES/SURFACES WITH RESIDUAL

MOISTURE >80% RH when tested to ASTM F2170 or 5% moisture content when tested to ASTM F2659

RLA MOISTURE SEAL

Apply 1-2 x coats @ coverage of litre/4m² per coat

Installation

Apply primer to surfaces to the extent of the waterproofing application, in line with relevant standards and project specifications. Refer to RLA primer data sheets for specific application details

DETAILING & BONDBREAKER SYSTEM:

Bondbreaker & Joint Transitions (AS 3740 & A/NZ 4654.1)	Option A <u>ELASTOPROOF JOINT BAND</u>
	Option B <u>BRW PF TAPE</u>
	Option C <u>RLA MAX SMP 25*</u>
Pipes and penetrations	Option A <u>ELASTOPROOF COLLARS</u>
	Option B <u>BRW PF TAPE</u>
	Option C <u>RLA MAX SMP 25*</u>
Leak control flanges & general fixtures	Option A <u>RLA MAX SMP 25*</u>
	Option B <u>BRW PF TAPE</u>
Static cracks ≥1mm up to 6mm/ screw/nail holes	<u>RLA MAX SMP 25*</u>

IMPORTANT: BRW PF Tape Bondbreaker/sealing tape option must be used in environments where temperatures fall below 0°C

Bondbreaker/Sealing Tape System Option #1

- Measure and cut **ELASTOPROOF JOINT BAND** for joints/junctions to be sealed.
- Apply first coat of WPU membrane by brush or roller in a 150mm wide strip applied centrally over the joint, and embed Elastoproof Joint Band into the wet coat
- Using a brush, press down firmly over the face of the Joint Band ensuring all creases or air pockets behind fabric edges are pushed out
- Apply a second coat of WPU membrane to fully encapsulate the Joint Band and affix to the surface
- **ELASTOPROOF CORNERS** are available for both internal (90°) and external (270°) junctions

Bondbreaker/Sealing Tape System Option #2

- Unroll **BRW PF TAPE** and measure the required lengths for joints to be sealed. Cut tape using scissors or knife
- Gradually remove release paper and position the tape in place, placing centrally over the joint
- Press into place with a spatula, roller, or cloth, ensuring air pockets and creases are pushed out

Bond breaker System Option #3 - Liquid Sealant

- Install bond breaker fillet using **RLA MAX SMP 25*** sealant to floor/wall junctions & horizontal/vertical joint transitions where the membrane will be bonded to the substrate and tool off smooth

Pipes and penetrations

- For floor pipes/penetrations protruding floors and walls, **ELASTOPROOF COLLARS** are to be fitted over the neck of the pipe and fixed into wet bed of WPU Membrane
- Where Elastoproof Collars are not used, create flanges using lengths of the **BRW PF TAPE**. Cut a circular aperture into the centre of a length and slide over the penetration to seal and adhere to the substrate
- Alternatively, seal around base/fill voids around penetration with a liberal bead of **MAX SMP 25***

Leak control flanges, static cracks & general fixtures

- Seal perimeter of the flanges and general fixtures to the substrate with **MAX SMP 25***
- Alternatively, seal with lengths of **BRW PF TAPE**

Static cracks ≥ 1mm up to 6mm / nail/screw holes

- Clean and remove any loose material from inside the crack/ screw hole
- Fill flush with surrounding surface with **MAX SMP 25***

*** RLA Waterproof Bandage can be considered for use in conjunction with RLA SMP Sealant for additional reinforcement**

APPLICATION & COVERAGE:

- WPU is to be installed in line with current edition, relevant volume and sections of the NCC (National Construction Code of Australia) pertaining to internal, external and general waterproofing applications within the scope of use for the product
- Using a brush or medium nap roller, apply an even and consistent first coat to the surface achieving a minimum wet film thickness of 0.75mm
- Once the first coat is dry, apply a second coat at right angles to the first coat to the surface achieving a minimum wet film thickness of 0.75mm.
- WPU is to be applied in a minimum of 2 coats at a total minimum coverage of 1.5 litres/m² to achieve a dry film thickness (DFT) of 0.9mm
- RLA recommends regular testing of the depth of the coat with a wet film thickness gauge at regular intervals during installation.

	Wet Film	Dry film	Total
1 st coat	0.75mm	0.45mm	0.45mm
2 nd coat	0.75mm	0.45mm	0.9mm

Coverage per 15litre pail: 10m²

Note: Coverage is dependent upon surface condition and will vary accordingly as uneven and porous surfaces will require greater coverage to achieve the specified film thickness.

TILES & TOPPINGS:

- Polymer modified adhesives are to be used for direct fixing of tiles over the WPU membrane. Refer to the RLA range of modified adhesives suitable options
- For screeding, refer to the RLA range of re bagged, engineered screed products for suitable options.
- If applying a site screed, render or concrete mix over WPU, it is recommended to incorporate [RLA PLASTINEX](#) as a proprietary bonding agent in the mix.

OTHER FINISHES:

- RLA WPU may be painted over with water based paints and texture finishes. Contact paint/texture manufacturer to confirm
- For vinyl, resilient finishes or other overlays, contact RLA Technical Department for details

DRY TIMES:

Recoat	2-4 hours
Tiling / Toppings	48 hours
Full Cure / Flood Test	3 days

Note: Figures based on normal ambient temperatures of 23°C and 50% RH. Longer drying times will be required in cooler temperatures and high humidity

CLEAN UP:

- Clean up with water while wet
- Once dry product needs to be removed mechanically or by solvent

PACKAGING:

15litre pail

SHELF LIFE/STORAGE:

- 12 months when stored in original unopened packaging
- To be stored in a dry area off the ground
- Do not store in direct sunlight

LIMITATIONS:

- Do not apply when surface or ambient temperatures are below 5°C or above 35°C
- Must not be applied when raining or if rain is imminent
- Not recommended for immersed applications
- Must not be used over damp, or high moisture content substrates unless first treated with RLA Moisture Seal
- Suitable for light, intermittent and maintenance traffic only. Not suited for vehicular or pedestrian traffic areas
- For detailed advice on applications not mentioned in this TDS, contact the RLA Technical Department

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:	
Colour	Light Grey
Form	Viscous liquid
Specific Gravity	1.26g/cm ³
Water Vapour Transmission ASTM E96 Desiccant method	3.2g/24h/m ²
Tensile Strength AS4858	>3MPa
Elongation AS4858	>400%
Classification	Class III
Compliance to AS4858	PASS
Compliance to AS 4654.1	PASS

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 the 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 relevant Australian Standards.

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.

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