

TECHNICAL DATA – WPU

WPU

1 part polyurethane/Acrylic fibre reinforced water based membrane

DESCRIPTION:

RLA WPU is an elastomeric one part polyurethane/Acrylic fibre reinforced water based membrane developed as a high performance internal/ external membrane for most general waterproofing applications. It is suitable for external applications where a UV stable, occasional trafficable membrane is required.

FEATURES AND BENEFITS:

- 12 months shelf life in unopened containers
- Tough flexible film when cured
- Class III membrane certified to ASTM 4858:2004 wet area membranes when applied in accordance to AS3740:2010
- Tested in Accordance to AS4654.1 2012 for suitability for external use
- Low VOC content
- Single pack no mixing
- Excellent adhesion to a wide variety of substrates
- Safe and easy to use
- UV stable for external applications
- Can handle light maintenance traffic once fully cured

AREAS OF APPLICATION:

For use in commercial, residential buildings in internal / external wet areas such as bathrooms, kitchens, laundry's, balconies, decks, roofs or any such area that will be tiled / covered with an appropriate finish. Areas left exposed as a UV resistant membrane finish to suitably graded surfaces prepared with adequate falls to minimise ponded water, and allow water shedding to drains.

Acceptable Substrates

- Concrete after curing period of 28 days
- Masonry / render after curing period of at least 7 days
- cement sheeting / underlay / external weatherboard / blue board
- pre-cast concrete once release agent has been removed/ dissipated
- Wet area plasterboard / Villaboard
- Structural Plywood Type A (PAA JAS-ANZ)
- Brickwork ,Hebel (aggregate block)

TECHNICAL DATA – WPU

PRODUCT DATA	
Colour	Grey
Packaging	15LTR
Specific Gravity	1.26 g/cm ³
Elongation	450% at break
Classification	Class III High Extensibility
Moisture Vapour Transmission Rate	3.15g/m ² /24h
Tensile Strength	5.2 MPa
Volume Solids	60-62 %
Final Drying Time	24 hr @23°C & 50% RH

APPLICATION DETAILS:

Commencement of membrane application shall be deemed to be an acceptance of the substrate suitability by the applicator to apply the intended membrane system.

Surface preparation

All surfaces to be waterproofed must be firm, clean, dry, sound and suitable to accept a liquid membrane. All contaminants such as grease, oil, wax, curing compounds, dust, droppings, loose materials, paints, plaster must be removed. Fibrous cement sheeting, wet area plasterboard must be fixed in accordance with manufacturers installation instructions.

Concrete must be allowed to cure for at least 28 days and cement render / sand cement screeds must be allowed to cure for at least 7 days prior to application of **RLA WPU**. Porous substrates must be primed with **RLA Uniprime**. Damp (Touch Dry) substrates must be primed with **RLA MoistureSeal**. If a vapour barrier is required to protect against hydrostatic pressure, 2 coats of **RLA Moisture Seal** must be applied. Failure to do so may result in poor adhesion and subsequent delamination.

Bond Breaker

Bond breakers are required at all wall/floor, hob/wall, junctions, and at all movement joint (wall/wall) where the membrane is bonded to the substrate. The Bond breaker shall be of the type compatible with class III flexibility membranes. RLA Tile and Stone neutral cure silicone, RLA Fillet Joint Seal and RLA Peel N Stick Tape or an appropriate bondbreaker system for under membrane application should be used.

RLA Tile & Stone silicone sealant or RLA Fillet Joint Seal should be applied to produce 12mm x 12mm minimum covered bead over inter planar joints. Bond breaker profile must be a minimum of 6mm in depth at the midpoint of the joint. If any cracks in the substrate are evident, grind out the crack to a width at least 6mm and fill with RLA Tile & Stone neutral cure silicone, or RLA Fillet Joint Seal and allow to cure.

TECHNICAL DATA – WPU

Apply silicon or bond breaker tape over the entire crack to isolate from the membrane. If applying membrane over Hardies flooring systems, follow Hardies recommendations for fixing and sealing of expansion joints. Apply Silicone or Fillet Joint Seal to all drainage outlets, flanges, water stops etc.

Dedicated Expansion Joints must be isolated from the membrane using bondbreaker tape ensuring at least 12mm either side of the crack, and covering the entire length and width of the joint

APPLICATION OF MEMBRANE:

All areas to receive membrane must be primed using the appropriate primer. **RLA WPU** can be applied by brush roller or trowel in multiple coats

Apply **RLA WPU** to the wall /wall joints applying material at least 100mm either side of joint and in the case of a designated shower area the total wall area up to rose height.

Waterproof wall joints to 1800 mm from the finished floor level, and a minimum width of 40 mm either side of the junction

Seal all tap, shower rose, and bath spout penetration. All floor/wall joints should be waterproofed to a minimum of 40 mm either side of junction, and 150mm outside of the shower.

APPLICATION RATES:

Wall areas:

Apply a minimum of 2 coats at a **total rate** of 0.7 Litre/ m² to achieve a dry film thickness (DFT) of 0.5mm.

Floor Areas:

Apply a minimum of 2 coats at a **total rate** of 1.5 Litre /m² to achieve a dry film thickness (DFT) of 0.9 mm.

Drying time between coats is approximately 12 hours depending on ambient conditions and the porosity of the substrate

In cooler temperatures and high humidity, a longer curing time will be required to achieve a cured film between coats.

If applying membrane externally, ensure the slab is prepared with adequate falls to minimise ponded water, and to allow for surface water shedding to drains.

Avoid applying membrane if rain is imminent.

	Wet film/coat	Dry film/coat	Total DFT
walls	0.45 mm	0.30 mm	0.5 mm
Floors	0.75 mm	0.45 mm	0.9 mm

TECHNICAL DATA – WPU

TILING OVER THE MEMBRANE:

Allow minimum 24 hours after final coat to cure.

Adhere tiles using a cement based 1 or 2 part adhesive. RLA Group recommends **RLA Unigrip, RLA Lite or RLA Mastik** Tile Adhesive's. If other forms of coverings are to be used it is recommend to use a protection board or sheet over the cured membrane to protect film damage from consequent trades, until a screed or finished covering/floor system is applied before proceeding.

RECOATING AND REPAIR:

The surface must be clean and free of all adhesive residues, surface dust, or any other contamination. Wash down with appropriate cleaner and flush with fresh water, and allow to dry

Loose or damaged membranes must be cut to a clean adhered edge and removed.

Any exposed substrate must be primed. Apply 2 coats of membrane to the damaged area as per the coverage instructions ensuring a complete overlap of a minimum of 100mm either side of damaged area.

LIMITATIONS:

- **RLA WPU** is not designed to stop a hydrostatic head of water pressure
- **RLA WPU** must not be used directly over damp, wet or contaminated surfaces
- **RLA WPU** should not be applied externally if it is raining or rain is imminent
- **RLA WPU** must not be used as a wearing surface for heavy foot or vehicle traffic
- **RLA WPU** should not be applied where the surface temperature is below 10°C or greater than 35°C

CLEAN UP:

Clean tools and equipment with warm water and detergent while the membrane is still wet

PACKAGING:

RLA WPU is available in 15ltr plastic pails

TECHNICAL DATA – WPU

COVERAGE:

Wall area 0.7 ltr /m² (DFT 0.5 mm)
Floor areas 1.5 ltr /m² (DFT 0.9 mm)

SHELF LIFE:

12 months in unopened containers when stored in a cool dry and weatherproof environment

AVAILABILITY:

RLA WPU is available Australia wide through the RLA Group distributor network. Please contact RLA Group 1800 242931 to find out where your nearest stockist will be.

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

Product: WPU
Issue Date: MAR 19
Issue No: D01
Item Code: 14442

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.