

1 KOMPONENT

ONE COMPONENT, FIBRE REINFORCED
CEMENTITIOUS MEMBRANE



DESCRIPTION:

RLA 1KOMPONENT is a dynamic, fibre-reinforced cementitious membrane comprising specially graded aggregates and polymers. Producing a highly durable and flexible finish, 1K is capable of withstanding significant flexural strain to be suitable for a broad range of positive and negative waterproofing applications

FEATURES AND BENEFITS:

- Can be applied to damp surfaces
- Primeless adhesion over porous mineral surfaces
- High adhesion strength
- Tough, durable finish
- Suitable for immersed environments
- Good crack bridging properties
- Compatible surface for direct fixing of tiles and toppings
- Can withstand 5 bar positive and 1.5 bar negative hydrostatic pressure
- Independently tested and certified to AS4858:2004 for internal wet areas
- Potable water approved to AS 4020

USES:

- Internal wet areas, showers, laundries, and bathrooms under tile finishes
- Planter boxes
- Retaining walls
- Ponds and water features
- Swimming pools
- Façade walls under tiles and stone
- Internal basement walls as a damp proof membrane

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, laitance, 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, static cracks and heavy undulations to be filled, repaired, made sound and level. Refer to the RLA range of surface preparation aids 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:

POROUS/ABSORBENT SURFACES:

Porous surfaces can be pre dampened with a light water mist. Surfaces should be damp but not wet or with standing water

NON POROUS/ NON ABSORBENT SURFACES:

Non porous mineral surfaces including steel-trowelled, burnished and dense concrete must be mechanically abraded to roughen surface and provide a suitable key. Once abraded, surfaces should be pre dampened with a light water mist as per instructions above.

For priming over PVC, metal and glazed surfaces refer to [RLA NON POROUS PRIMER](#)

Apply 1 coat @ coverage of 1litre/8-10m²

Installation

Apply primer/dampen surfaces by brush, roller or spray mister 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 & AS 4654.1)	Option A ELASTOPROOF JOINT BAND
	Option B BRW PF TAPE **
Movement joints up to 20mm* <small>*Projected opening of joint not to exceed 50% of starting joint width</small>	ELASTOPROOF JOINT BAND
Pipes and penetrations	Option A ELASTOPROOF COLLARS
	Option B BRW PF TAPE **
	Option C RLA MAX SMP 25 **
Leak control flanges & general fixtures	Option A RLA MAX SMP 25 **
	Option B BRW PF TAPE **
Static cracks $\geq 0.75\text{mm}$ up to 6mm screw/nail holes	RLA MAX SMP 25 **

****Not suitable for immersed applications**

Bondbreaker/Sealing Tape System Option #1

- Measure and cut [ELASTOPROOF JOINT BAND](#) for ALL movement joints/junctions to be sealed
- Apply first coat of RLA 1K membrane by brush or roller in a 150mm wide strip applied centrally over the joint, and embed the 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 1K 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 the 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

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 1K 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 of penetration with a liberal bead of [MAX SMP 25*](#) sealant

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 $\geq 1\text{mm}$ 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**

MIXING:

1K is a cementitious powder product which requires adding and mixing water. The water ratio can be adjusted to achieve the correct consistency based on the application method

APPLICATION BY ROLLER / BRUSH:

The mixing ratio is 5.6 litres of water per 20kg bag. When mixing in smaller quantities this equates to: 280mls of water per 1kg of powder; or 1 part water to 3.5 parts of powder

APPLICATION BY TROWEL

The mixing ratio is 4.0 litres of water per 20kg bag. When mixing in smaller quantities this equates to: 200mls of water per 1kg of powder; or 1 part water to 5 parts of powder

- Pour clean water into a clean pail and gradually add the 1K while mixing continuously using an electric stirrer with paddle attachment until a smooth, lump-free consistency is obtained.
- Always add powder to the liquid.
- Allow the mix to stand for 3 minutes and re-stir before applying the adhesive onto the substrate

Note: DO NOT MIX BY HAND

APPLICATION & COVERAGE:

- 1K 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, medium nap roller or trowel, apply an even and consistent first coat to the surface
- Once the first coat is dry, apply subsequent coats at right angles to the previous coat
- 1K is to be applied in a minimum of 2 coats (trowel) and 3 x coats (roller) to achieve a dry film thickness (DFT) of 2mm
- RLA recommends regular testing of the depth of the coat with a wet film thickness gauge at regular intervals during installation.

	TROWEL	ROLLER/BRUSH
No. Coats	2	3
Wet film thickness per coat	1.5mm	1mm
Total dry film thickness	2mm	
Spread rate	1.27 kgm ² per mm of thickness	1.04 kgm ² per mm of thickness
Coverage per 20kg bag	7.5m ²	9.5m ²
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.		

DRY TIMES:

Pot Life	1 hour
Recoat	4-6 hours
Screeding /Tiling	24 hours
Immersion	10 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	

TILES & TOPPING:

- Polymer modified adhesives are to be used for direct fixing of tiles over the 1K 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 1K, it is recommended to incorporate [RLA PLASTINEX](#) as a proprietary bonding agent in the mix.

CLEAN UP:

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

PACKAGING:

20kg bag

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 to be applied over standing water
- When using for areas subject to rising damp or negative hydrostatic pressure, all active water leaks must first be treated with a suitable hydraulic setting cement/water plug
- Not to be used as an exposed coating in swimming pools or spas - must be tiled over. Refer to the RLA range of tile adhesives and grouts for suitable options
- 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 :

Form	Dry powder Mixed: Viscous liquid
Colour	Wet: Light grey Dry film: Brown
Operating Temperature	-20°C - +70°C
Water Vapour Transmission ASTM E96 Desiccant method	0.65g/24h/m ²
Water absorption AS3558.1	8.6%
Tensile Strength AS 1145	2.4MPa
Elongation AS1145	37%
Classification	Class 1
Compliance to AS 4858	PASS
Depth of Penetration of water under positive pressure 5 bars	No visual penetration below them membrane
Water impermeability in negative pressure 1.5 bars	No visual penetration below them membrane
PERFORMANCE (ISO 13007-5)	
Tensile adhesion strength	
Initial	≥ 1MPa
Water immersion	≥ 0.5MPa
Freeze/thaw	≥ 0.5MPa
Crack Bridging	≥ 0.75mm

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.