

# Technical Data Sheet

## LRDIY - TOUGH COAT

Acrylic, highly durable, UV protective coating

# Liquid Rubber® DIY

Easy Waterproofing Solutions

### DESCRIPTION AND FEATURES

LRDIY - TOUGH COAT is a premium quality, UV protective, seamless, water based, cementitious co-polymer 3 component coating. It is designed to be mixed with cement and oxides to produce a high build coating which is extremely flexible and very strong. This mixture provides an abrasive resistant, UV stable, durable finish for both interior and exterior applications.

LRDIY - TOUGH COAT has very low moisture permeability so is ideal for areas subject to high humidity or where protection from condensation is required. It is ideal where cracks need to be bridged and filled. Totally permeable, it can be used to patch leaks in any surface and is highly recommended as a waterproof coating due to its elongation, durability and adhesion properties. The moisture resistant surface of our Trafficable Membrane allows water to run-off and protects the substrate by limiting and even stopping moisture penetration.

Our LRDIY - TOUGH COAT has a very high tensile strength along with superior adhesion and elongation properties, making it a perfect waterproofing coating and lining in mining and dam situations. It offers a superior quality and cost effective alternative to plastic and LDPE liners.

LRDIY - TOUGH COAT coating systems can also incorporate a non slip factor. Specialised grit can be dispersed into the membrane to produce a seamless, non slip, high grip, UV protective, chemical resistant and water impermeable coating.

LRDIY - TOUGH COAT is a particularly strong road surface alternative that has been specifically designed to assist bitumen and asphalt as a road repair solution. It meets all Australian Roads & Main Roads standards for repairs and maintenance in conjunction with road repairs and has been fully tested and approved by Curtin University as a road repair coating.

### USES

LRDIY - TOUGH COAT can be applied to:

- LRDIY - Waterproof Sealant
- Masonry and plaster
- Concrete and bricks
- Cement and asbestos fibre sheeting
- Most primed metals (roofs & gutters)
- Rock / Coal / Steel / Bitumen
- **Clay or sand surfaces directly on the ground!**

### TECHNICAL DATA

<b>Generic Type:</b>	Acrylic / Cement / Oxide	<b>Coverage:</b>	1m <sup>2</sup> / L
<b>Finish:</b>	Low sheen - semi gloss	<b>Number of coats:</b>	2 – 4 depending on substrate condition
<b>Colour:</b>	White (can be tinted)	<b>Touch Dry:</b>	4 – 6 hours
<b>Density:</b>	(Combined) 1.20	<b>Hard Dry:</b>	10 – 12 hours
<b>Application:</b>	Airless Spray, brush or roller	<b>Time between coats:</b>	12 hours
<b>Thinner:</b>	Water	<b>Cleanup:</b>	Water when wet, solvents when dry
<b>Storage:</b>	Cool dry conditions		
<b>Volume Solids:</b>	20 – 25%		
<b>Dry Film Thickness:</b>	250µ – 2mm		

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## CHEMICAL TESTING LABORATORY VICTORIA

### LRDIY - TOUGH COAT TEST REPORT SUMMARY

*Elongation = the amount of deformation the membrane can elongate before failure. AS4564 for external membranes and AS4858 for internal membranes classifies them according to elongation percentage: Class I = 10-59%, Class II = 60-299% & Class III = 300% or more.*

Other cementitious modified formulations have an elongation of less than 100%; LRDIY - TOUGH COAT formulation is around 200% (very flexible Class II membrane).

*Tensile and Adhesion Strength = the maximum force in MPA recorded during the tests. These tests are performed using a dumbbell sample tested at a jaw separation rate of 50 mm/min. The tensile and adhesion strength is calculated based on the width and thickness of the sample to determine N/mm<sup>2</sup> = Mpa.*

Other formulations have a tensile/adhesion strength of around 1 – 2 Mpa, whereas LRDIY - TOUGH COAT has a tensile/adhesion strength of more than 5 Mpa - "Classification: very strong membrane".

*Hydrostatic Pressure Resistance – This test measures the head of water that the membrane can withstand before the water can penetrate it. +ve pressure is when water is forced onto the surface of the membrane and tries to penetrate it. -ve pressure is when water is forced through the substrate to the back of the membrane and tries to push the membrane off the substrate.*

LRDIY - TOUGH COAT was tested for +ve hydrostatic pressure resistance. The equipment can only test up to 5 Bar pressure (1 Bar = 10 metre head of water). Other products do not reach the maximum of 5 Bar but LRDIY - TOUGH COAT remained intact at the maximum of 5 Bar (50 metre head of water), therefore the result is stated at greater than 5 Bar.

*Chemical resistance – Tests performed to AS4858 and AS4564 test that the membrane has chemical resistance by way of samples provided.*

LRDIY - TOUGH COAT test results show a high tolerance to harsh chemicals including cyanide, caustic and salt water.

### **APPLICATION INSTRUCTIONS**

#### **Surface Preparation**

All surfaces should be clean, sound and free from dry or loose material. Check for presence of waxes, mould release or bond breaking agents, oils or other contaminants than may affect adhesion before application. Given the wide variety of substrates and site specific conditions, it is advisable to check adhesion prior to job commencement. Moulds, lichen or fungal growth should be treated with a suitable algaecide or if unavailable with a dilute bleach solution (1 part household bleach to 2 parts water) to kill any spores. Leave the bleach solution in contact with the surface for approx 10 minutes then liberally rinse with clean water and allow to completely dry. Masonry should be flush pointed. Make good any defects in surfaces. Remove any dags, high points or protrusions prior to application. Any laitance in concrete surfaces should be removed with wire brush or by grit blasting.

#### **Movement Joints**

All expansion and movement joints between differing substrates should be sealed with a suitable sealant. Reinforcement with LRDIY - GEO TEXTILE is recommended where movement is possible. Allow pre-treatments to dry overnight before general application of the membrane.

#### **Corners**

Apply a polyurethane sealant or concrete render, in accordance to the manufacturer's instructions and finish to form a solid, coved or 45° fillet extending at least 8mm on to the adjacent surfaces. Once the sealant is dry apply the membrane directly over the sealant and onto the adjacent surfaces. For additional protection LRDIY - GEO TEXTILE can be applied over the sealant before application of the membrane.

#### **Cracks and Gaps**

Cracks and gaps should be pre-filled and sealed with LRDIY - TOUGH COAT and allowed to cure. For additional protection LRDIY- Geo Textile can be applied over the crack/gap before application of the membrane. Visible cracks in the substrate should be pre-treated with additional coats of the membrane. Larger cracks should be routed out to form a 'V' and then filled and sealed with LRDIY - TOUGH COAT. Once dry, apply a thick coat of the membrane extending at least 50mm either side. Allow to dry and then apply the membrane to the entire surface.

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### **Sheet Joins**

Timber or FC sheet joins should ideally be fully coated with a polyurethane sealant prior to butting together and fixing. All joins should be fully filled and finished flush or slightly proud of the surface. Once dry, apply a thick coat of the membrane extending at least 50mm either side. Allow to dry and then apply the membrane to entire surface. For additional protection LRDIY - Seam Tape can be applied over the sealant before application of the membrane.

### **Waste Outlets, Penetrations and Angles**

Floor wastes should be rebated in to the floor to allow water to readily drain and its perimeter edges and gaps completely sealed with a polyurethane sealant or concrete render. Plastic or metal angles should be securely embedded into a continuous, gap free bed of a polyurethane sealant / concrete render.

### **Mixing**

LRDIY - TOUGH COAT is a 3 component system. Mix thoroughly with cement (min 10% by weight, more in cold or humid conditions) and oxides (white min 10% plus tint for desired colour) immediately prior to application.

### **Application Method**

Apply by brush/roller/airless spray to obtain a consistent and even coating. LRDIY - TOUGH COAT should be applied in a minimum of two coats applied at right angles to obtain a smoother finish and faster curing times. The membrane should be applied to at least 1mm dry film thickness. If the first 2 coats do not result in a dry film thickness of at least 1mm, then a subsequent coat(s) will be required. Coat all areas liberally working the product into any voids or depressions. Where Geo Textile is used, apply first coat to the required area and while still wet embed the TEXTILE, ensuring there are no creases and no air is trapped. Apply a second coat of the membrane at right angles to the previous application. Allow to cure completely before applying screeds, tiles, or any other coverings. If exposed to weather, do not apply if rain is imminent (within one hour), or if the temperature is below 5°C or above 40°C. Applying the membrane during cold weather, where there is limited or no air flow over the membrane may result in the membrane taking longer to cure. In enclosed areas introducing air flow by using a fan will assist in curing.

### **TRANSPORT / STORAGE**

Available Sizes:	5L, 15L, 20L, 205L, IBC
Weights:	6kg, 18kg, 24kg, 246kg, 1100kg
Dangerous Goods Class:	N/A

### **DISCLAIMER**

Customers are advised to consider the information in this data sheet in the context of how the product will be used, including surfaces and any other products used. The information provided in this data sheet represents our best scientific and practical knowledge. Any advice, information or assistance provided by Liquid Rubber DIY in relation to its products is given in good faith, however is provided without liability or responsibility. Due to the wide variety of site conditions we are unable to assume liability for any loss that may arise from the use of our products. The user is responsible for checking the suitability of products for their intended use.