Roofproof®

Single Component Hybrid Polyurethane Coating

PRODUCT DESCRIPTION

Roofproof is a single-component, water-based, aliphatic polyurethane-modified, waterproofing membrane with high elasticity, durability and flexibility. Passes all requirements of AS/NZS 4858:2004 Class III for Interior and Exterior Waterproofing.

INTENDED USES

- Roofs, Terraces and Balconies
- Kitchens and Bathrooms
- Industrial washrooms and showers
- Protective membrane for foam
- Retaining Walls

FEATURES

- Certified for Waterproofing - AS/NZS 4858-2004 (Internal and exterior when exposed to UV)
- Water-based - Safe and easy to clean tools
- Single-component - No mixing required.
- High Elasticity and Flexibility
- High Tensile Strength and Elongation
- Excellent resistance to weathering (Sunlight, Frost and Rain)
- Complies with all environmental and health regulations
- Eligible for green building regulations

PRODUCT DATA

Volume Solids	60%
Theoretical Coverage	1.25 Square metre / Litre @ 800 Microns WFT (1Kg per m²)
Finish	Pigment
Colour	White or Light Grey
Gloss	Matte
Mixing Ratio	Single Pack
Potlife	2 Hour
Typical Thickness	500 Microns Dry Film Thickness
Cleaner	Water and Swell
VOC	0 Grams/Litre
Specific Gravity	1.26 (25 °C)

CURE & RECOAT

Substrate Temp	Tacked	Hard Dry	Minimum Recoat Time	Maximum Self Recoat Time
45°C	30 mins	1 Hr	30 mins	3 Days
25°C	1 hr	2 hrs	1 hr	3 Days
5°C	2 Hr	4 hrs	2 Hr	3 Days

Note 1: The cure times and minimum recoat window will change based on temperature, humidity and wet film thickness.

ENGINEERING DATA

Property	Method	Results
Pull-off adhesion value, concrete	ASTM D4541 (20mm diameter dolly)	> 1.5 MPa
Elongation at 24°C	ASTM D412-92	> 500 %
Tensile Strength	ASTM D412-92	1.90 MPa
Tear Strength	ASTM D 624-86	8 - 12 N/mm
Minimum Recovery	ASTM F36-15(2021)	90 %

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LIMITATIONS

- The roofproof cure rate is slowed by environmental conditions. Low temperature and high humidity will slow the evaporation of water and the curing of Roofproof.

SURFACE PREP

Concrete

The concrete should be at least 28 days old. Ensure that the moisture content of the concrete is less than 7% before applying any coatings. A moisture test, as outlined in ASTM D4263 “Standard Test Method for Indicating Moisture in Concrete by the Plastic Sheet Method”, can be used to confirm the moisture content.

1. Prepare the concrete surface to a clean, dry finish (free of dust, oil, grease and loose particles)
2. Ensure that any laitance or other invisible contaminants have been removed. Be especially careful with concrete surfaces in contact with form ply or moulds that may contain release agents. These release agents commonly contain heavy hydrocarbon waxes or silicones that can adversely affect the adhesion of the Roofproof
3. Fill bug holes with PU sealant or Civilox – LV100 primer mixed with Renderfill
4. Render exposed aggregate to the original profile with a mixture of Civilox - LV100 and Renderfill
5. Remove high spots and protrusions, radius sharp edges and corners. Cove internal 90-degree angles with 45-degree, 20mm flat chamfer
6. Preparing of the concrete surface should be done in accordance with SSPC-SP13/NACE 6. Smooth, shiny concrete must be roughened to a profile similar to 80-grit sandpaper or comply with CSP 2 - 5 or as documented in a coating system specification.
7. Surface preparation methods employed can be abrasive blasting, hydro blasting, mechanical scabbling or diamond grinding. Acid etching is not an acceptable surface preparation method

Steel

1. Remove all rust, mill scale, oil and any previously applied coatings back to bare clean steel using abrasive blast. Welds should have slag and spatter fully removed.
2. Abrasive blast to Sa2½ (ISO 8501-1:2007) or SSPC-SP10. A sharp, angular surface profile of 60-100 microns is recommended.
3. For permanent immersion, remove any soluble salts on the steel surfaces. The concentration of soluble salts must be less than 5 micrograms/cm²

APPLICATION

Mixing

Use a mechanically powered flat paddle stirrer to mix Roofproof, taking care not to entrap air while stirring.

Equipment

Large and Small Areas	Preferred method is Roller
Airless 38:1 Pump	Tip Range 21-26 Thou (0.53-0.66 mm). Output fluid pressure at spray tip not less than 3,000 psi (210 kg/cm²)
Temperature of material at gun	Ambient (20 – 30°C)

Environment

Relative humidity:	The relative humidity must be less than 85%
Dew point:	The substrate temperature must be at least 3°C higher than the dew point temperature
Substrate Temperature:	The substrate temperature must be a minimum of 5°C

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Thinning

Roofproof can be thinned 20% water to create a primer for the Roofproof

Clean-Up

Water may be used for general clean-up of equipment and flushing hoses. For soaking contaminated metal parts, use SWELL. Replace the SWELL regularly as soon as it starts turning cloudy and dirty.
NOTE: NEVER USE SWELL TO CLEAN PAINTED SURFACES, AS IT WILL STRIP THE PAINT. NEVER USE SWELL TO FLUSH PUMPS AND HOSES.

Application

Prime Coat
A prime coat of Roofproof is required to seal the substrate pores and stabilise the surface. Dilute roofproof with 20% clean water to thin the Roofproof into a primer /sealer. The roofproof primer/sealer will improve the bond strength of the membrane. Apply with a brush, roller or spray. The primer/sealer coat will only need 30 minutes to 2 hours to dry.

Membrane Coats
The roofproof can be applied with brush, roller and spray. Apply two undiluted coats of 800 microns / 0.8mm Wet Film Thickness. (1kg per m²). Ensure each coat must be properly cured before starting the next coat. Apply the second coat at 90° to the first application of Roofproof. Look for pinholing and repair any defects.

COMPATIBILITY

Primers

Roofproof + 20% Water
Civilox - LV100

TYPICAL SYSTEM

Substrate	Environment	Substrate Prep	Coat	System	DFT
Concrete	External roof	CSP 2 - 5	1st Coat	Roofproof + 20% thinner	5m²/L
			2nd Coat	Roofproof	500µm
			3rd Coat	Roofproof	500µm

STORAGE & HANDLING

Store in dry, shaded conditions away from sources of heat and in the original properly sealed containers. Protect from heat and frost. Protect contents from moisture. A shelf life of 12 months minimum is typical with unopened containers if stored at ambient conditions at 25°C.

PACK SIZE

15L SKU (Stock Keeping Unit)
20Kg of Roofproof in a 20L Container

HEALTH & SAFETY

Roofproof is for professional use only.
This product should not be used without consulting the Safety Datasheets first.
Please observe all health and safety as well as environmental legislation that applies in your state

DISCLAIMER

The information contained herein is offered without charge and is for use by technically qualified personnel at their own risk. All statements, technical information and recommendations contained herein are based on tests and data which we believe to be reliable, but the accuracy or completeness thereof is not guaranteed, and no warranty of any kind is made with respect thereto.

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