

PRODUCT DESCRIPTION

TREMproof W95 is a two component, potable water approved, hybrid polyurea spray.

USAGE/PURPOSE

TREMproof W95 has been developed as a high wear protective coating for protection from abrasion and corrosion as well as a high performance waterproofing membrane. TREMproof W95 can be used for

- Concrete Tanks
- Dams
- Pipelines
- Steel Tanks
- Ponds
- Storage Facilities
- Water Retention Storage

PACKAGING

420kg - Part A (220kg), Part B (200kg)

COLOUR

Clear pale amber liquid

SHELF LIFE

Will have a minimum shelf life of 6 months when stored as recommended in original unopened packaging.

STORAGE

Should be stored in closed containers under dry conditions out of direct sunlight between 18°C and 25°C.

FEATURES & BENEFITS

- 1:1 v/v mix ratio
- Fast reactivity
- Low VOC
- 100% Solids
- Excellent abrasion resistance
- Mercury free
- Low shrinkage
- Spray-able



LIMITATIONS

- Surface discolouration and degradation may occur if exposed to UV radiation and sunlight.
- Use with adequate ventilation.
- Do not apply to damp or contaminated surfaces.

SUBSTRATE PREPARATION FOR SURFACES

1. Concrete shall be water-cured and attain a 20 MPa minimum compressive strength. Moisture content in the concrete must be lower than 4.5% as measured using a Tramex CME 4 Moisture Meter. Depending on concrete construction and job site location, additional concrete testing may be required. Please contact your local Tremco Representative.
2. Concrete substrate temperature must be a minimum of 3°C above dew point, at the time of application. Ideally, substrate temperature should be above 18°C to achieve optimal adhesion.
3. Concrete shall be free of any laitance which may inhibit sufficient adhesion. Removal of laitance can be achieved through a variety of physical abrasion methods, such as, shotblasting (preferred method) sandblasting or grinding. In line with best practice, Tremco suggests a minimum CSP3 is achieved.
4. Concrete surface shall be properly cleaned so that the surface to receive the coating, sealant or liquid-applied flashing is free of mould, paint, sealers, coatings, curing agents, loose particles, and other contamination or foreign matter that may interfere with the adhesion.

TYPICAL PHYSICAL PROPERTIES

PROPERTY	TEST METHOD	TYPICAL VALUES
Hardness	ASTM D2240	95+-5 Shore A
Solid Density (22°C)		1.10 g/ml
Tensile Strength	ASTM D412	30+-5 N/mm ²
Elongation	ASTM D412	275+-50%
Tear Strength	ASTM D624 (Die C)	75 N/mm
Taber Abrasion - H22 wheel 1kg per 1000 cycles	ASTM D4060	30 mg loss
Potable Water (Certificate 208040 17.07.2017)	AS 4020:2005	Pass - Ratios up to 15,000mm ² /L exposure
Water Absorption	ASTM D471	< 1% @ 24 Hours
Adhesion	Intercoat	1.50 MPa
	Concrete (Unprimed)	1.20 MPa
	Concrete (Primed)	2.40 MPa
	Steel (75µm shot blast)	3.40 MPa

5. Shrinkage cracks in the concrete surface that are 1.6mm wide or greater shall be ground out to a minimum 6mm wide x 12mm deep and treated according to the instructions in "Detail Work" section.
6. Structural cracks regardless of width shall be ground out to a minimum 6mm wide x 12mm deep and treated according to the instructions in "Detail Work" section.
7. Spalled areas shall be cleaned free of loose contaminants prior to repair. Because jobsite conditions vary, it is recommended that you contact your local Tremco Representative. Depending on the substrate and depth of the spalled areas, a TREMcrete repair product will be recommended as the best method of repair.
8. In the event of exposed reinforcing steel, it is recommended that the structural engineer of record be contacted for investigation and for best repair method.
9. Surfaces shall be made free of defects that may telegraph and show through the finished coating. Surfaces that are rough (fins, ridges, exposed aggregate, honeycombs, deep broom finish, etc.) shall be levelled and made smooth by applying a coat of sand-filled epoxy using TREMcoat MPE.
10. 1 All drains shall be cleaned and operative. Drains shall be recessed lower than the deck surface. The surface shall be sloped to drain to provide positive drainage (1:100) as per AS4654.2. Drains should be detailed as instructed below:
 - Cut a 6mm wide x 12mm deep keyway into the concrete surface at any point where the coating will have an exposed terminating edge -- that is, any point where the coating will end in an open area subject to traffic, for example, at the end of a ramp, around drains and alongside expansion joints.

SUBSTRATE PREPARATION FOR METAL SURFACES

All surfaces shall be sand-blasted to meet the requirements in AS1627.4, class 2.5 for "Near White Metal".

JOBSITE MATERIALS

Recommended materials and their uses are as follows:

- TREMproof W95 Primer- TREMproof W95 Primer is a two component, high solids, liquid applied, epoxy-polyamine primer with unique penetrating characteristics.
- Vulkem 191 QD Primer: One-Part, Low Odour, Rapid Curing Interlaminary Primer for Tremco Polyurethane Products.
- Dymonic 100: A one-part, exceptional movement (+100/-50%) moisture-curing, gun grade polyurethane sealant for use in precast, masonry, expansion joints, control joints and for use in forming cant/ fillet bead.

USAGE

The following is a guide to estimate material usage:

Product	Coverage Rate		Thickness	
TREMproof W95 Primer*	0.14m ² /L	1.59m ² / 11L Kit	0.125 DFT	
TREMproof W95	0.5m ² /L	420kg kit - 210m ² /kit	2.0mm WFT	2.0mm DFT

NOTE: Recommended coverage rates are approximate. Sand loading methods and concrete surface profiles may increase the amount of material required to obtain uniform coverage.

*Depending on the state of prepared substrate.

CURE TIME

The following is a guide to estimate cure times:

Test	Specification	Units
Gel Time (22°C):	10+-2	Seconds
Cure Time (22°C):	10+-2	Seconds

PRIMING

Note: Do not apply primers, sealant or membranes to a frosty, damp or wet surface or when substrate temperature is below 4°C or the surface temperature is above 43°C. Cure times as stated below are based upon standard ambient conditions of 23°C, 50% RH. A decrease in ambient temperature and humidity will significantly lengthen the cure time.

- TREMproof W95 requires TREMproof W95 Primer on all porous substrates such as concrete, masonry, brick or stone prior to application of the TREMproof W95 membrane, as it is certified for AS 4020. Please refer to appropriate product data sheet regarding application instructions.

DETAIL WORK

Note: Do not apply sealant or coatings to a frosty, damp or wet surface or when substrate temperature is below 4°C or the surface temperature is above 43°C. Cure times as stated below are based upon standard ambient conditions of 23°C, 50% RH. A decrease in ambient temperature and humidity will significantly lengthen the cure time.

1. Lay a 6mm diameter backer rod or bond breaker tape into the corner at the juncture of all horizontal and vertical surfaces, such as floor to wall junctions, hobs, columns, or penetrations through the deck. Apply a bead of Dymonic 100 25mm wide over the backer rod or bond breaker tape. Tool the sealant bead to form a 45° fillet. Use sufficient pressure to force out any trapped air and to assure complete wetting of the surface. Remove excess sealant from the deck or wall joint. **NOTE:** Backer rod or bond breaker tape is only required for moving joints.
2. Install a backer rod, 3mm to 6mm diameter larger than the joint width to all prepared control joints. Set depth of backer rod to control the depth of the sealant. Depth of sealant is measured from the top of the backer rod to the top of the concrete surface. Proper depth of sealant is as follows:
 - a. For joints 6mm to 12mm wide, the depth to width ratio should be equal. The minimum joint size is 6mm x 6mm.
 - b. Joints 12mm wide or greater should have a sealant depth to width ratio of 1:2.
3. All cracks and joints shall be sealed with Tremco approved sealant, and tooled flush with the surface. Note: Expansion joints should not be coated over. For treatment of expansion joints, contact your local Tremco Representative.
4. Tremco recommends that all detail sealant should be allowed to fully cure prior to installation of the TREMproof W95 membrane.
5. Apply a detail coat of TREMproof W95 150mm wide centered over all floor/ wall joints, untreated cracks, all routed and sealed cracks and over all cold joints. These joints should be 'double detailed' to allow for a minor degree of movement. Contact your local Tremco Representative, for recommended details.
6. Apply a strip of masking tape or duct tape to the vertical sections, at a height that complies with the requirements of AS4654.2, but a minimum of 40mm above the top edge of the sealant fillet to provide a neat termination of the vertical detail coat.

COATING APPLICATION

TREMproof W95:

1. Part B should be mixed each day prior to ensure a homogeneous mix consistency, care should be taken to ensure that the product is not over mixed, as air entrainment will affect the cured physical properties of TREMproof W95. Part A does not need to be mixed prior to use.

- Mixing by way of 1:1 mix ratio (by volume) in heated plural component spray equipment such as Graco EXP-2.
- Apply TREMproof W95 in multiple passes to a total yield of 2.0mm WFT/DFT to the entire area to be coated, including overall detail coats, but excluding expansion joints.
- Re-coat time is a minimum of 4 minutes and a maximum of 3 hours. If time between re-coats exceeds 3 hours, TREMproof W95 must be primed with Vulkem 191 QD Primer. Please contact your local Tremco Representative when overcoating outside the recommended windows.

MACHINE SETTINGS

- Dynamic Spray Pressure: > 2000 psi (dependant on equipment)
- Primary Heater Temperatures: 50 - 65°C (same temperature for both components)
- Hose Temperature: as per Primary Heater setting

CLEAN UP

- Clean all adjacent areas to remove any stains or spills with Tremco Xylol.
- Clean tools or equipment with Tremco Xylol before material cures.
- Clean hands by soaking in hot, soapy water, then brushing with a stiff-bristle brush.

TROUBLESHOOTING

This section describes common industry application issues when certain environmental conditions exist and their remedies. If any of these should occur, it is always recommended that you contact your local Tremco Representative:

- When a deck contains too much moisture, the moisture may change into a vapour, which then condenses at the concrete membrane interface before the coating has cured and may cause blisters or bubbles, ultimately interfering with proper adhesion. If this should occur, the blisters can be cut out, allowing moisture to escape. After moisture has escaped and the surface is dry, the area can be repaired.
- If the coating application has been installed at a thickness that is greater than our installation instructions, pinholes, blisters or bubbles may develop in the coating. To avoid this occurrence, the material should be applied in accordance to the installation instructions.
- If the coating is applied in very hot ambient temperatures, the air in the small spaces between the concrete particles increases in volume and forms blisters, contact Tremco should this occur.

WEATHER IMPACT ON COATING APPLICATION

This section discusses the impact of applying these coatings outside the ideal temperature application range of 5 to 35°C at 50% RH.

- At temperatures lower than the ideal range, the material will become viscous and it will cure at a slower rate. Refer to the chart above for approximate cure rates.
- Deck temperatures may affect cure rates even when ambient temperatures are high.
- Enclosed areas may slow the cure rate of the coating because humidity levels tend to be low in these conditions due to the low exchange of air over the membrane.
- In extremely dry conditions with RH less than 50%, even when temperatures are high, cure rates can still be extended.

HEALTH & SAFETY PRECAUTIONS

The Safety Data Sheet (SDS) must be read and understood prior to use.

TECHNICAL SERVICE

Tremco CPG Australia Pty Ltd has a team of Representatives who provide assistance in the selection and specification of products. For more detailed information or service and advice, call Customer Service on (02) 9638 2755 or fax (02) 9638 2955.

GUARANTEE/WARRANTY

Tremco CPG Australia Pty Ltd products are manufactured to rigid standards of quality. Any product which has been applied (a) in accordance with Tremco CPG Australia written instructions and (b) in any application recommended by Tremco CPG Australia, but which is proved to be defective, will be replaced free of charge.

Any information provided by Tremco CPG Australia in this document in relation to Tremco CPG Australia's goods or their use is given in good faith and is believed by Tremco CPG Australia to be appropriate and reliable. However, the information is provided as a guide only, as the actual use and application will vary with application conditions which are beyond our control. Tremco CPG Australia makes no representation, guarantee or warranty relating to the accuracy or reliability of the information and assumes no obligation or liability in connection with the information. To the extent permitted by law, all warranties, expressed or implied are excluded.

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