

PRODUCT DESCRIPTION

TREMproof 250GC is a Green Star Compliant rapid curing, high solids, low VOC, moisture cure modified polyurethane waterproofing membrane that can be applied to “Green” (24 hour old) concrete.

USAGE/PURPOSE

TREMproof 250GC is an effective membrane for use on concrete, wood and prepared masonry surfaces in areas such as:

- Retaining Walls
- Below Grade Waterproofing
- Tunnels
- Planter Boxes (with anti-root additive)

FEATURES & BENEFITS

- Tested to AS 4654.1 – Waterproofing membranes for external above ground use.
- Can be applied on 24-hour old concrete, allowing for rapid acceleration of the construction time-frame and installation of landscaping or backfill.
- Can be applied onto green concrete, minimising construction delays due to inclement weather. Consult Tremco for further information.
- Single component minimises application errors with improper mixing of plural component products.
- Minimum 85% solids assist the contractor in applying the correct dry film thickness by allowing them to quickly measure the wet film thickness.
- Multiple application types allow a single membrane to be used on many applications throughout the project.
- Can be applied at a rate up to 3mm in a single lift to speed application without sacrificing performance.



PACKAGING

18.9L Pails

COLOUR

Black

SHELF LIFE

12 months when stored as recommended in original unopened packaging.

STORAGE

Store in a dry cool place in an upright position in original unopened packaging.

TREMproof 250GC

TYPICAL PHYSICAL PROPERTIES

PROPERTY	TEST METHOD	TREMproof 250GC
Drying Time @ 23°C, 50% RH	ASTM D1640	6 hours
Full Cure Time @ 23°C, 50% RH	ASTM D1640	24 hours
% Solids	By Volume	85%
% Solids	By Weight	85%
Bond Strength	ASTM C794	Concrete Masonry - 32 N Plywood - 68 N
Adhesion-in-Peel after Water Immersion	ASTM C836	29.7 N/cm
Low Temperature Flexibility (Mandrel Bend Test)	ASTM C836	Pass
Low Temperature Crack-Bridging	ASTM C1305	Pass
Cyclic Movement	CSIRO Moving Joint Test	Pass
Elongation at Break	AS4654.1 Appendix A	313%
Elongation at Break	ASTM D412	600%
Hardness (Type 00)	ASTM D2240	87
Temperature Resistance	AS4654.1 Clause 2.6	Pass
Ultraviolet Resistance	AS4654.1 Table A4	N/A - Non-Exposed
Tensile Strength	AS4654.1 Table A4	1.20 MPa
Tensile Strength	ASTM D412	1.38 MPa
Durability	AS4654.1 Table A4	Pass
Water Vapour Transmission Rate	ASTM E96	4.64 g/m ² /24hours

* Drying times will vary depending on ambient temperature and relative humidity

LIMITATIONS

- ❑ Do not apply to contaminated surfaces.
- ❑ Not to be used as an exposed or trafficable surface.
- ❑ Use with adequate ventilation.
- ❑ Concrete forms must be removed a minimum of 24 hours before TREMproof 250GC can be applied.
- ❑ Not approved for direct contact with Bitumen-based products.
- ❑ Not for use with potable water.
- ❑ Contact your local Tremco Representative for compatibility information and job-specific recommendations on tie-in and termination details.
- ❑ Do not apply over a curing or forming oil compound.
- ❑ Do not apply over a non-vented metal pan decking substrate without contacting your local Tremco Representative.
- ❑ Not suitable for use as a waterproofing membrane beneath tile bed/screed or tiled finished floors.

SUBSTRATE PREPARATION FOR CONCRETE SURFACES

1. Concrete shall be water-cured and attain a 20 MPa minimum compressive strength. TREMproof 250GC may be applied to green or damp concrete (minimum 24 hours after formwork removal) however the substrate must be free from all standing, surface water. Please contact your local Tremco Representative for further information.
2. 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.
3. Concrete surface shall be properly cleaned so that the surface receiving 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.
4. 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.
5. 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.
6. 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.
7. 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.
8. 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.
9. All drains shall be cleaned and operative. Drains shall be recessed lower than the adjacent substrate. The surface shall be sloped to drain to provide positive drainage as per the relevant Australian Standard.

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:

- ❑ TREMprime Non-Porous Primer: A low-VOC primer for use in applying urethanes to non-porous substrates such as metal, PVC and glass.
- ❑ 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.

- ❑ TREMflex 50: A one-part, high movement (+/-50%) moisture-curing, gun grade polyurethane sealant for use in precast, masonry, control joints and for use in forming cant/fillet bead.

USAGE

The following is a guide to estimate material usage:

Coverage Rate		Thickness	
0.62m ² /L	11.5m ² /Pail	1.65 mm WFT	1.4 mm DFT

* All coverage rates are approximate & vary with substrate condition.

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.

1. TREMproof 250GC requires TREMprime Non-Porous Primer on metal and PVC surfaces, such as puddle flanges, pipes, or flashing. Please refer to appropriate product data sheet regarding application instructions.

DETAIL WORK

- ❑ Shrinkage cracks in the concrete <1.6mm wide nominally can be detailed with a 150mm wide x 1mm WFT strip of TREMproof 250GC
- ❑ Shrinkage and non-structural cracks >1.6mm wide must be appropriately prepared and filled prior to application of the TREMproof 250GC membrane.
- ❑ Grind out cracks to a minimal 6mm wide x 12mm deep.
- ❑ Remove all loose debris and concrete dust that may inhibit adhesion.
- ❑ Apply closed cell polyethylene backer rod or bond breaker tape into joint to prevent 3 sided adhesion of the sealant.
- ❑ Install appropriate Tremco polyurethane sealant, TREMflex 50 or Dymonic 100 into the crack in the correct depth to width ratio.
- ❑ Apply a 150mm wide x 1mm WFT strip of TREMproof 250GC un-reinforced.
- ❑ When tiling over joints, Tremco highly encourages that the joint is expressed through to the surface of the tiles. Between the tiles, fill the joint with the appropriate Tremco joint sealant. Depending on the tile composition, polyurethane or silicone sealant may be recommend. Contact Tremco for further assistance.
- ❑ Consult Tremco for advice on the treatment of movement/expansion joints.

METHOD OF APPLICATION

1. Minimum application requirements set forth by the NCC and relevant standard (AS 4654) should be followed, as well as project specific detail requirements/recommendations by Tremco.
2. Using a medium-nap (9mm to 13mm) roller cover, apply TREMproof 250GC at the following rates to the entire area to be coated, including over applications of TREMproof 250GC detail coats, but excluding expansion joints.

Coverage Rate		Thickness	
0.6m ² /L	11.5m ² /Pail	1.65 mm WFT	1.4 mm DFT

3. If the TREMproof 250GC has been applied for 24 hours or longer during the ideal temperature application range (see chart on last page of document) and requires an additional coat to achieve the required dry film thickness, it should be cleaned with a damp cloth of Tremco Xylol (do not saturate it). Prime

coat it with Vulkem 191 QD Primer. We highly recommend that you contact your local Tremco Representative with any questions on the appropriateness of priming.

- Allow TREMproof 250GC to cure a minimum of 24 hours prior to the installation of a suitable free draining protection course and backfill. Cure rates depend on temperature and humidity. Refer to cure rate guidelines in chart at the end of this document.

CLEAN UP

- ❑ Clean all adjacent areas to remove any stains or spills with Tremco Xylol.
- ❑ Clean tools or equipment with Tremco Xylol before materials cure.
- ❑ Clean hands with Acetone or other mild solvent then brush with a stiff-bristle brush. Water will accelerate the curing of the TREMproof 250GC.

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, dry times could be extended significantly. As a result, Tremco recommends that the material is applied in accordance with 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.
- If the previous coating application has not fully cured, water may become trapped between the coats and lead to large blisters. When cut out, they may still be tacky on the underside. Blisters may be cut out and repaired after the surface has been allowed to fully dry. Also, additional application will dramatically reduce the rate the material cures and full cure will take dramatically longer than normal.

WEATHER IMPACT ON COATING APPLICATION

This section discusses the impact of applying these coatings outside the ideal temperature application range of 18 to 30°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 below for approximate cure rates at varying temperatures.
- Storing materials at cooler or warmer temperatures than ideal, will affect the handling and curing characteristics of the materials.
- Substrate temperatures may affect cure rates even when ambient temperatures are high.
- Enclosed areas may slow the cure rate of the coating because air flow tends to be minimal in these areas.
- In high relative humidity conditions, the material will cure faster as it is a moisture cure product.

APPROXIMATE CURE TIMES IN HOURS AT 50% RH

The following is a guide to estimate cure time:

Temperature at 50% RH	TREMproof 250GC
4.4 - 12.8°C	>72 hours
12.8 - 18.3°C	12 to 72 hours
18.3 - 29.4°C	6 to 12 hours
29.4°C	3 to 4 hours

Variations in temperature and humidity can affect the cure rate of the coating. The above chart should be used as a guide only to determine the approximate rate of cure. Other factors can also influence the cure rate such as substrate temperature and enclosed environments. For more information about proper application procedures please contact Tremco.

HEALTH & SAFETY PRECAUTIONS

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

TECHNICAL SERVICE

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

Any information provided by TREMCO in this document in relation to TREMCO's goods or their use is given in good faith and is believed by TREMCO 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 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.