Multithane Y

Polyurethane Waterproofing Membrane
For Non-Exposed Areas

PRODUCT DESCRIPTION

Multithane Y is a cross linked, moisture curing, single pack, liquid applied polyurethane waterproof membrane. It cures to create a seamless, tough, and durable elastomeric (Class III) membrane. The product adheres effectively to most appropriately prepared and primed substrates and is suitable for both above and below-ground applications. Multithane Y meets the criteria of:

- ❑ AS4654.1 2012 Waterproofing membranes for external above ground use. Exposed areas must be topped with Multithane ATC.
- ❑ The 'Green Star' environmental criteria.

USAGE/PURPOSE

Multithane Y has been formulated for most waterproofing applications requiring long term waterproofing for Non-UV exposed waterproofing applications making it ideal for:

- ❑ **Exposed Areas** (when top coated with Multithane ATC): Roofs, decks, terraces, balconies, podiums
- ❑ **Tiled or Covered Areas:** Decks, balconies, terraces, podiums, retaining walls, planters & landscaped areas, structural slabs, pits, door flashings

PACKAGING

15 Lt pail.

COLOUR

Dark Grey.

SHELF LIFE

9 months when stored as recommended in original unopened packaging.

FEATURES & BENEFITS

- ❑ Successfully tested as a Class III membrane to AS 4654.1 ensuring that the product meets the requirements set forth by the National Construction Code of Australia.
- ❑ Single pack (no mixing) easy to apply up to 1.2mm
- ❑ Low VOC levels. Compliant with GBCA Green Star rating requirements.
- ❑ Stays flexible at low temperatures
- ❑ Self-leveling 100% bonded seamless membrane (no joints or laps)
- ❑ Formulated to provide long term protection.

STORAGE

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

LIMITATIONS

- ❑ Not designed for prolonged UV exposure.
- ❑ Direct tile adhesion is not advised. Please note: for direct tile bond applications seek Duram technical advice.
- ❑ Cannot be applied to slightly damp surfaces the product will not adhere. The surface must dry before the membrane can be applied, freedom from surface water and continual dampness is essential.
- ❑ Not designed as a trafficable membrane although infrequent maintenance foot-traffic is acceptable during the construction phase.
- ❑ In exposed areas, Multithane Y must be coated with Duram Multithane ATC or covered.

COVERAGE/YIELD

The following is a guide to estimate material usage:

PRODUCT	COVERAGE RATE	THICKNESS	
Multithane Y	0.72 Litres per m²	WFT 1.39mm	DFT 1.22mm

TYPICAL PHYSICAL PERFORMANCE

PROPERTY	TEST METHOD	RESULTS
Drying Time @23°C - 50% RH	ASTM D1640	12 Hours
% Solids	By Volume	88%
Bond Strength	ASTM C794	Primer: Primeseal MC - 53.33N
Cyclic Movement	CSIRO Moving Joint Test	Pass
Elongation at Break	AS4654.1 Appendix A	>300%
Tensile Strength	AS4654.1 Table A4	>2 MPa
Durability	AS4858 Table A4	Pass
Durability	AS4654.1 Table A4	Pass
Water Vapour Transmission Rate	ASTM E96	<7/m²/24 Hours
VOC g/L	ASTM D2369	<250

SUITABLE SURFACES

Multithane Y can be applied to a variety of clean, sound and dry, water resistant substrates, including, but not necessarily limited to:

- ❑ Concrete
- ❑ Cementitious Screeds
- ❑ Masonry
- ❑ Lightweight composite sheeting
- ❑ Other general building materials (subject to site specific testing)

For further project specific information please consult with Tremco CPG.

SUBSTRATE PREPARATION - CEMENTITIOUS SUBSTRATES

- ❑ The substrate shall be appropriately cured and attain a 20MPa minimum compressive strength.
- ❑ The moisture content in the cementitious substrate shall be measured to be satisfactorily dry. The following limits are considered acceptable:
  - Relative humidity in-situ probe test, as per ASTM F2170 < 75% RH
  - Non-destructive comparative surface moisture content, as per ASTM F2659 < 4.5%

Note: care should be taken where relying on the non-destructive comparative surface moisture content to verify the substrate moisture content where the element is subject to single sided drying, for example, structures where permanent steel formwork has been used, slab on grade elements or where a below screed membrane has been used. Tremco CPG typically recommends that a relative humidity in-situ probe test is undertaken in these instances.

- ❑ Slab on grade elements shall have an effective damp proof membrane in place.
- ❑ Depending on construction methodology and job site location, additional substrate testing may be required. Consult with your local Tremco CPG representative for project specific advice once the site has been established.
- ❑ The substrate shall be properly cleaned so that the surface to receive the coating, sealant or membrane is free of mould, paint, sealers, coatings, curing agents, loose particles, and other contamination or foreign matter that may interfere with the adhesion.
- ❑ The substrate 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, shot blasting (preferred method), sandblasting or grinding.
- ❑ As best practice, for membranes that are to be directly trafficked, the substrate shall be prepared to achieve a CSP 3 (in line with ICRI's Technical Guideline No. 03732) shall be achieved as part of the substrate preparation process.
- ❑ Surfaces shall be made free of defects that may telegraph and show through the finished coating. All local protrusions shall be appropriately removed, and all local voids and indentations greater than 5mm shall be treated with a compatible filling compound. Consult with your local Tremco CPG representative for project specific advice regarding the recommended treatment.
- ❑ All spalled areas shall be appropriately prepared, to ensure that the substrate is clean and sound prior to membrane/ coating installation, in line with the requirements listed on the relevant product technical literature. As site specific conditions may vary, it is recommended that you contact your local Tremco CPG representative for project specific advice regarding the treatment of the spalled areas. Depending on the substrate and depth of the spalled areas, a Eucocrete or Flowcrete repair product will be recommended as the best method of repair.
- ❑ In the event of exposed reinforcing steel, it is recommended that the structural engineer of record be contacted for investigation and subsequent advice regarding the repair methodology.
- ❑ Where third party engineered products or admixtures form part of the cementitious substrate to be coated, seek project specific advice from Tremco CPG to ensure that there will be no detrimental impact to the performance of the proposed Tremco CPG system.

SUBSTRATE PREPARATION - LIGHTWEIGHT SHEETING

- ❑ The surface to be coated must be dry, clean, smooth, firm, free of release agents, dust, mud, wires, fins, metal, projections, or any other substance that may prevent the nominated membrane system from achieving satisfactory adhesion.
- ❑ Ensure that the sheeting is appropriately installed in line with the manufacturer's and/or engineer's recommendations. Particularly, ensure that all sheet edges are supported on structural framing with appropriate fixings used at the correct centres to avoid differential movement between adjacent sheets.
- ❑ All sheet edges shall be cut cleanly, with all excess debris and loose material appropriately removed prior to membrane application.
- ❑ Where required by the manufacturer of the sheeting material, ensure that an appropriately sized joint is integrated between adjacent sheets, with the joint being appropriately treated with an approved compound (typically, Duram Resiflex Hybrid or Resiflex FC)
- ❑ The membrane system shall be appropriately detailed across all sheet joints, using a combination of Perm-a-fab, Duram Leak-Seal Tape and/ or DualFlex Bandage. Consult with your local Tremco CPG representative for project specific advice.
- ❑ Undertake substrate specific moisture testing on the sheeting material, to ensure that it is sufficiently dry prior to priming and membrane application.
- ❑ Consideration should be given to the overall design of the structure, to mitigate against the potential for condensation to occur beneath, or rising vapour to affect the installed membrane.
- ❑ In line with regulatory requirements, Tremco CPG require that all sheeting materials are inherently water resistant, with all cut edges appropriately treated to maintain the inherent water resistance of the sheeting.
- ❑ It is not recommended to use particleboard sheeting as a substrate for waterproofing systems.
- ❑ Seek project specific advice from Tremco CPG, where the proposed lightweight sheeting material is treated with a pre-applied, film forming coating.

SUBSTRATE PREPARATION - NON-POROUS SUBSTRATES

- ❑ Duram membranes can typically be detailed onto small sections of various non-porous substrates, including, but not necessarily limited to; drainage outlets, pipe penetrations, balustrades, and in-situ hobs.
- ❑ All metal surfaces shall be mechanically abraded to meet the requirements in AS 1627.4, class 2.5 for "Near White Metal".
- ❑ All plastic surfaces shall be mechanically abraded to create a profile to assist with the subsequent adhesion of the membrane/ coating system.
- ❑ All non-porous substrates are to be cleaned via an IPA wipe, using the 2-cloth method, ensuring that all residual solvent is allowed to flash off prior to priming.
- ❑ Particular attention should be paid where a coating/ membrane is to be installed over a galvanised substrate, as the zinc coating may prevent the system from achieving satisfactory long-term adhesion. Consult your local Tremco CPG representative for project specific advice.
- ❑ Notwithstanding the above, Tremco CPG recommends that project specific adhesion testing is undertaken on a representative sample

to ensure that the level of preparation and priming allows the membrane system to achieve satisfactory adhesion over the non-porous substrate.

- ❑ Consult with your local Tremco CPG representative for project specific advice where it is proposed to apply the nominated system to a large area over a non-porous substrate, or over any other type of substrate.

PRIMING

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

- ❑ Surfaces should ideally be primed with Duram Primeseal MC applied at no less than 1 Lt per 4m² and allowed to dry. Primers need to be applied at no less than the relevant Duram Primer TDS.
- ❑ Duram Azcoseal/Multiseal may be used in areas where the moisture content of the surface is low, applied at no less than 1Lt per 4m².
- ❑ If there is a risk of entrapped moisture in the substrate which may cause the membrane to bubble or outgas, two coats of Duram Primeseal MC should be applied.
- ❑ Excessively porous, friable, and dusty surfaces may require an additional priming coat.
- ❑ Metal surfaces must be clean and free of contaminants and then apply Duram ME Primer. If rusted, treat to remove rust, apply a rust converter, and then apply Duram ME Primer.
- ❑ Other Duram primers suitable for use with Multithane Y include Multiseal.
- ❑ Allow primers to touch dry before applying the membrane and refer to the TDS of the relevant primer.

DETAILING WORK

Non-structural static cracks < 1.6mm wide:

- ❑ A 150mm wide detail coat of membrane shall be installed over the primed crack prior to the installation of the complete waterproofing system.

Non-structural static cracks > 1.6mm wide and construction joints:

- ❑ Non-structural static cracks that are 1.6mm wide or greater shall be ground out to a minimum 6mm wide, and subsequently treated with a compatible sealant.
- ❑ Ensure that backing rod or bond breaker tape is installed at the base of the joint to prevent 3-sided adhesion of the sealant.
- ❑ The depth of the grind shall be adjusted depending upon whether backing rod or bond breaker tape is to be used, to ensure that the sealant is able to be installed to a 1:1 (width: depth) ratio, assuming a 6mm joint width.
- ❑ The treated crack shall then be treated with a 150mm wide detail coat of membrane prior to the installation of the complete waterproofing system.

Live cracks and joints:

- ❑ Seek project specific advice from your local Tremco CPG representative, as the way in which the crack/ joint will be treated may vary depending on the maximum anticipated movement, and the desired overburden finish.

FILLETS

Internal Wet Area:

- ❑ Joints, fillets, and bond breakers shall be installed as part of the internal wet area membrane system, in accordance with the information contained with AS 3740.
- ❑ Typically, where a Class III membrane system is to be installed, a 12mm bead of compatible sealant constitutes a suitable fillet.

External Above Ground:

- ❑ Joints, fillets, and bond breakers shall be installed as part of the external above grade membrane system, in accordance with the information contained with AS 4654.2.
- ❑ Typically, where a liquid applied membrane system is to be system, a 15mm x 15mm bead of compatible sealant constitutes a suitable fillet.
- ❑ All external corners shall be constructed with a chamfered edge to allow to the nominated membrane system to be installed to a consistent thickness across the corner.

APPLICATION

1. Minimum application requirements set forth by the NCC and relevant Australian standard (AS 3740 and AS4654.2) should be followed, as well as project specific detail requirements/ recommendations by Duram.
2. Using a medium-nap (9mm to 13mm) roller cover, apply Multithane Y at the following rates to the entire area to be coated, including over applications of Multithane Y detail coats, but excluding expansion joints.

Application Coat	Coverage Rate	Thickness
Waterproof Coat	0.83m²/L	WFT 1.2 mm DFT 1.0 mm

3. Allow Multithane Y to cure a minimum of 4 hours between coats to reduce the risk of solvent entrapment between coats. Cure rates depend on temperature and humidity. Refer to cure rate guidelines in chart at the end of this document. If the Multithane Y has been applied for 24 hours or longer, it should be cleaned with a damp cloth of Xylene. We highly recommend that you contact your local Duram Representative with any questions on the appropriateness of priming.

CURING

Drying and curing of the product is affected by type, dryness and porosity of the surface, temperature, humidity, ventilation, climate conditions and application technique and therefore drying and curing can only be given as a guide.

Curing Phase	Anticipated Cure Time (25°C at 50% RH)
Touch Dry	2 - 6 hours per coat
Recoat	6 - 24 hours
Set Up Cure	24 hours
Full Cure	4 days/ 96 hours

TILING, TOPPING OR TOP COATING

Multithane Y is usually covered.

- ❑ **Under Tile/ Screed Applications:** As Multithane Y is a moisture cured polyurethane, an unbonded screed is typically required. Consult with Tremco CPG for project specific advice for bonded/ direct stick tile applications.
- ❑ **Planters/ Landscaped Areas:** Protect system with a free drainage protection course (typically drainage cell and geofabric on horizontal surfaces, and dimpled protection board with integral geofabric on vertical surfaces) prior to the installation of the growing medium. Coreflute shall not be used. In line with best practice, only plants with non-invasive root systems should be used within planters and landscaped areas.
- ❑ **Pedestals/ Timber Decking:** Protect system with geofabric or other rigid protection in local areas where pedestals or other structural supports are in direct contact with the installed system.

- ❑ **Ballast:** Protect system with a free drainage protection course (typically drainage cell and geofabric on horizontal surfaces, and dimpled protection board with integral geofabric on vertical surfaces) prior to the installation of the ballast. Coreflute shall not be used.
- ❑ **UV Exposed Applications:** Multithane Y must be top coated with Multithane ATC. Refer to Multithane ATC Pedestrian System PDS for further information.

Please note for direct tile stick applications please seek advice from Duram. For exposed applications, Multithane Y must be top coated with Multithane ATC.

CLEAN UP

- ❑ Avoid spills. They are difficult to clean particularly on porous surfaces.
- ❑ On concrete and non-porous surfaces for wet spills use a cloth and Duram Solvent.
- ❑ Do not clean off carpets as it is better to allow product to cure and then shave the carpet.
- ❑ Equipment should be immediately cleaned with Duram Solvent.

SPECIFICATION

The information contained in this product data sheet is typical but does not constitute a full specification as conditions and specific requirements may vary from project to project. The instructions should be considered as a minimum requirement. The applicator or contractor must use their skill, knowledge, and experience to carry out additional works as may be necessary to meet the requirements of the project. Specification for specific projects should be sought from the company in writing.

*The VOC content of the products is a weighted average of the VOC contents of all the raw materials in the formulation. It is determined by calculation using raw material data from suppliers.

HEALTH & SAFETY PRECAUTIONS

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

CONDITIONS OF USE AND DISCLAIMER

The information contained in this TDS is given in good faith based upon our current knowledge and does not imply warranty, express or implied but does not constitute a full specification as conditions and specific requirements may vary from project to project. The instructions should be considered as a minimum requirement. The applicator or contractor must use their skill, knowledge, and experience to carry out additional works as may be necessary to meet the requirements of the project. Specification for specific projects should be sought from the company in writing. The information is provided and the product is sold on the basis that the product is used for its intended purpose and is used in a proper workmanlike manner in accordance with the instructions of the TDS in suitable and safe working conditions. Under no circumstances will the Company be liable for loss, consequential or otherwise, arising from the use of the product.

TREMCO CPG AUSTRALIA

Duram a division of Tremco CPG Australia
ABN: 25 000 024 064
12/4 Southridge Street
Eastern Creek, NSW 2766

P: (02) 9624 4077
F: (02) 9624 4079
E: mail@duram.com.au