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 form 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 is formulated for a wide range of waterproofing applications requiring long-term performance in non-UV-exposed environments. It is ideal for:

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

PACKAGING

15 L 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, demonstrating compliance with the National Construction Code (NCC) requirements.
- ❑ Single-pack formulation (no mixing required), easy to apply up to 1.2 mm thickness.
- ❑ Low VOC content, compliant with GBCA Green Star requirements
- ❑ Remains flexible at low temperatures.
- ❑ Self-levelling and forms a 100% bonded, seamless membrane (no joints or laps).
- ❑ Designed for long-term protection.

STORAGE

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

LIMITATIONS

- ❑ Direct tile adhesion is not recommended. For direct tile bond seek Duram Technical Services for guidance.
- ❑ Must not be applied to damp surfaces. Substrates must be completely dry and free of surface water.
- ❑ Not designed as a trafficable membrane, although limited maintenance foot traffic is acceptable during construction.
- ❑ For exposed applications, must be top coated with Multithane ATC or otherwise protected.

COVERAGE/YIELD

The following is a guide to estimate material usage:

PRODUCT	COVERAGE RATE	WET-FILM THICKNESS (WFT)	DRY-FILM THICKNESS (WFT)
Multithane Y	0.72 L/m²	1.39 mm	1.22 mm

TYPICAL PHYSICAL PERFORMANCE

PROPERTY	TEST METHOD	RESULTS
Drying time at 23 °C and relative humidity (RH)	ASTM D1640	12 Hours
Solids	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, AS4654.1 Table A4	Pass
Water Vapour Transmission Rate	ASTM E96	< 7 g/m²/24 hr
VOC	ASTM D2369	< 250 g/L

SUITABLE SURFACES

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

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

For project-specific information, please consult with Tremco CPG.

SUBSTRATE PREPARATION - CEMENTITIOUS SUBSTRATES

- ❑ The substrate shall be appropriately cured and attain a 20 MPa minimum compressive strength.
- ❑ The moisture content in the cementitious substrate shall be measured to be satisfactorily dry. The following limits are considered acceptable:
  - RH 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 5 mm 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 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. Lower temperatures and humidity levels will significantly extend cure times.

- ❑ Surfaces should ideally be primed with Duram Primeseal MC applied at no less than 0.25 L/m² 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 0.25 L/m².
- ❑ If there is a risk of entrapped moisture in the substrate which may cause the membrane to bubble or outgas then 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 < 1.6 mm wide:

- ❑ A 150 mm 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 > 1.6 mm wide and construction joints:

- ❑ Non-structural static cracks that are 1.6 mm wide or greater shall be ground out to a minimum 6 mm wide, and subsequently treated with a compatible sealant.
- ❑ Ensure that the backing rod or the bond breaker tape is installed at the base of the joint to prevent three-sided adhesion of the sealant.
- ❑ The depth of the grind shall be adjusted according to whether backing rod or bond breaker tape is used, to ensure the sealant can be installed at a 1:1 width-to-depth ratio for a 6 mm joint width.
- ❑ The treated crack shall then receive a 150 mm-wide detail coat of membrane prior to 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 12 mm bead of compatible sealant is considered 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 within the standard AS 4654.2.
- ❑ Typically, where a liquid-applied membrane system is to be system, a 15 mm × 15 mm 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. Follow the minimum application requirements set out in the NCC and relevant Australian Standards, including AS 3740 and AS 4654.2, together with any project-specific detailing requirements recommended by Duram.
2. Using a medium-nap roller (9 mm to 13 mm), apply Multithane Y at the specified coverage rates to the entire area, including over detail coats, but excluding expansion joints.

Application Coat	Coverage Rate	Thickness
Waterproof Coat	0.83 m²/L	1.39 mm WFT 1.22 mm DFT

3. Allow Multithane Y to cure for a minimum of 4 hours between coats to reduce the risk of solvent entrapment between the 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	96 hours (4 days)

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 the 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 must not be used. As best practice, use only plants with non-invasive root systems.
- ❑ **Pedestals/ Timber Decking:** Protect the system with geofabric or other rigid protection in areas where pedestals or another structural supports are in 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 must not be used.

- **UV Exposed Applications:** Multithane Y must be top coated with Multithane ATC. Refer to the 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, particularly on porous surfaces, as the product is difficult to remove.
- For wet spills on concrete and other non-porous surfaces, use a cloth and Duram Solvent.
- Do not attempt to clean spills from carpet while wet; allow the product to cure, then carefully shave the affected fibres.
- Clean equipment immediately using Duram Solvent.

SPECIFICATION

The information contained in this product data sheet is typical and does not constitute a full project-specification, as site conditions and project requirements may vary. These instructions should be considered as a minimum requirement only. Applicators and contractors must use their skill, knowledge, and experience to carry out additional works which may be necessary to meet the project requirements. Written project-specific specifications should be obtained from the company where required.

*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.

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