Azcothane Reo

Polyurethane Fortified Water Based Waterproofing Membrane

PRODUCT DESCRIPTION

Duram Azcothane is a water-based, polyurethane dispersion fortified, acrylic hybrid, reinforced with the addition of micro fibres. It is a flexible, high performance liquid applied waterproofing membrane formulated for use in demanding protected waterproofing applications. Being internally reinforced, the need for external reinforcing is eliminated thereby making application easier and quicker.
Azcothane meets the criteria of the following standards, ensuring it meets the requirements of the National Construction Code of Australia:

- ❑ AS4858:2004 Wet Area Membranes.

USAGE/PURPOSE

Azcothane REO has been formulated for use as a high performance waterproofing membrane for a variety of protected applications, including but not necessarily limited to:

- ❑ Balconies and Terraces
- ❑ Decks
- ❑ Podiums
- ❑ Shower recess and wet areas
- ❑ Window reveals

PACKAGING

15 Lt Pail. 15 Litres equates to 16kg.

COLOUR

Grey.

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.

FEATURES & BENEFITS

- ❑ Contains microfibers (internally reinforced) eliminating the need to use external reinforcing.
- ❑ Successfully tested as a Class III membrane to AS 4654.1 and AS 4858 ensuring that the product meets the requirements set forth by the National Construction Code of Australia.
- ❑ Due to acrylic chemistry, Azcothane is suitable for direct stick tile and render applications. Consult Tremco CPG for further information.
- ❑ Water clean-up minimises the need for solvents on-site or solvent exposure to contractors.
- ❑ Bonded seamless membrane (no joints or laps).
- ❑ Compatible with Virotuff range.
- ❑ Single pack (no mixing) easy to apply anti-sag technology.
- ❑ Low VOC levels. Meets the 'Green Star' environmental criteria.
- ❑ Once full cure has been achieved, Azcothane REO will not re-emulsify.
- ❑ Bitumen and tar free will not stain grout or tiles.
- ❑ Has been formulated to inhibit biological growth.
- ❑ Australian made with a long history of Australian use.

TYPICAL PHYSICAL PERFORMANCE

PROPERTY	TEST METHOD	RESULTS
Bond Strength (Average peel strength)	ASTM C794	Concrete Masonry 60 N, Plywood 119 N
Cyclic Movement	Moving Joint Test	Pass
Elongation at Break	AS4654.1 Appendix A	311% Elongation
Heat Ageing	AS/NZS4858	Pass
Temperature Resistance	AS4654.1 Clause 2.6	Pass
Tensile Strength	AS4654.1 Table A4	1.32 MPa
Durability	AS4654.1 Table A4	Pass
Durability	AS4858 Appendix A	Pass
Water Vapour Transmission Rate	ASTM E96	6.36 g/m²/24 hours
Water Absorption	AS3558.1	3.67%
% Solids	By Volume	57%
VOC g/L	(APAS) – AP-D181*	<20

LIMITATIONS

- ❑ Azcothane Reo is not suitable for direct contact with high concentrations of chlorine.
- ❑ Azcothane Reo is not suitable for application on wet substrates. Consult with Tremco CPG for project specific advice where product is to be applied over green/damp substrates.
- ❑ Azcothane Reo is not to be used as a trafficable waterproof membrane.
- ❑ Azcothane Reo is not to be used below grade or in planter boxes.

COVERAGE/YIELD

Coverage rate varies depending upon type, condition, porosity, texture of the surface and application technique. The following is a guide to estimate material usage:

Application Type	Coverage Rate	Thickness (Per Coat)	
Standard	15m²/Pail	1.0mm WFT	0.5mm DFT
Water Resistant Non-Tanking Walls	Minimum 1m²/L	1.0mm WFT	0.5mm DFT

SUITABLE SURFACES

Duram Azcothane 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.
- ❑ 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. 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, Durascrim range, 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.

- ❑ Prepared porous substrates should be primed with Duram Primeseal MC (preferred), Duram WB Primer or Maxiprime.
- ❑ Where a vapour retarding primer is required, or where substrates have elevated moisture contents, 2 coats of Duram Primeseal MC may be applied. Consult with your local Tremco CPG representatitve for project specific advice where this is the case.
- ❑ Excessively porous surfaces may require multiple coats of primer to properly seal the substrate.
- ❑ Prepared metal substrates can be primed with Duram ME Primer.
- ❑ Plastic floor waste, puddle flanges, plumbing and water stop Prepared plastic substrates can be primed with Duram Superprime 711.
- ❑ All primers shall be applied, and allowed to cure in line with the instruction contained within the relevant Technical Data Sheet.

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

- ❑ Minimum application requirements set forth by the NCC and relevant standards (AS 3740 & AS 4654.2) should be followed, as well as project specific detail requirements/recommendations by Tremco CPG.
- ❑ Using a medium-nap (9mm to 13mm) roller cover, apply Azcothane at the following rates to the entire area to be coated, including over applications of Azcothane detail coats, but excluding expansion joints.
- ❑ Where being used as a waterproof membrane, as per the requirements of the NCC and relevant Australian Standard, Tremco CPG recommends two coats at the following application rates:

Application Coat	Coverage Rate	Thickness (Per Coat)
Waterproof Coat 1	1m²/L per coat	0.5mm DFT
Waterproof Coat 2	1m²/L per coat	0.5mm DFT

Where being used as a water resistant coating, surplus to the requirements of the NCC and relevant Australian Standard, Tremco CPG recommends one coat at the following application rate:

Application Coat	Coverage Rate	Thickness (Per Coat)
Water Resistant Coat	1m²/L	0.5mm DFT

- ❑ **Reinforced System:** Where required, Azcothane Reo may be used in conjunction with Duram Durascrim matting, a reinforcing polyester fabric. The Durascrim matting should be laid into a wet coat of Duram Azcothane Reo, and subsequently worked with a roller or brush to ensure that the fabric is properly embedded into the membrane, and free from wrinkles. Where this approach is to be adopted an additional 2 coats of Azcothane Reo shall be applied over the reinforced detail coat.

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 (25C at 50% RH)
Touch Dry	2 - 4 hours per coat
Recoat	4 - 24 hours
Full Cure	4 days/96 hours

Ensure membrane is fully cured before tiling or topping.

CLEAN UP

- ❑ Wet spills can be cleaned with water.
- ❑ On concrete and non-porous surfaces for wet spills use a cloth and water.
- ❑ 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 water.

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.

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