



## Product Data Sheet

# Azcothane REO

**Polyurethane Fortified Water Based Waterproofing Membrane.**

## Description

Duram Azcothane Reo is a water-based, highly flexible, high performance, polyurethane fortified acrylic emulsion waterproofing membrane formulated for use in demanding exposed, under tile, underground and immersed waterproofing applications.

Azcothane Reo is a modified Azcothane membrane with the addition of micro reinforcing fibres.

Azcothane Reo meets the criteria of:

- AS4858:2004 Wet Area Membranes
- AS4654.2 Exterior, non-exposed applications
- the 'Green Star' environmental criteria.

Azcothane Reo is an elastomeric, environmentally friendly membrane designed for both internal and exposed external applications. It cures to form a durable, odourless, impervious, seamless membrane that when fully cured does not re-emulsify even if immersed in water. Does not stain grout or tiles and has excellent resistance to hydrostatic pressure.

Being internally reinforced, the need for external reinforcing is eliminated thereby making it easier and quicker to use.

Azcothane Reo is available in White and Grey and Blue. Other colours are available but minimum quantities apply.

## Uses

Duram Azcothane Reo has been specifically designed for exposed, under-tile, underground and immersed waterproofing requirements including the long-term waterproofing of:

- Exposed concrete and metal roofs
- Wet areas within buildings (shower recesses, bathrooms & laundries)
- Ponds & water features
- Concrete and timber decks
- Terraces and balconies (under tiles)
- Concrete slabs
- Retaining walls
- Planter boxes
- Water retaining structures
- Tiles or topped areas

The product exhibits excellent chemical resistance and has been formulated to inhibit biological growth.

## Suitable Surfaces

Duram Azcothane Reo is suitable for properly primed: Concrete, cement, cement render, block work, brick, masonry, FC sheeting and CFC sheeting, plaster board and timber, plywood and particle board (if primed with Duram Primeseal) and metal (if primed with a metal primer).

Note: Particle Board is not regarded as a suitable substrate for very wet areas and particularly shower recesses and should be replaced with CFC sheeting. As a minimum, Particle Board should be sealed with one to two coats of Duram Primeseal. All joints and corners must be sealed with a polyurethane sealant and a reinforced fabric used in conjunction with the membrane.

Duram Azcothane Reo may be applied to slightly damp surfaces but the product will not fully cure if the surface remains damp. This process takes longer than if the surface was allowed to dry before application. The surface must dry before the membrane can dry. Freedom from surface water and continual dampness is essential.

## Additional Uses

Duram Azcothane Reo has been formulated as a completely versatile waterproofing membrane, available in White and Grey, making it is suitable for:

- Exposed to direct sunlight on roofs (flat, sloping or metal deck).
- Under tile applications - wet areas, balconies, terraces etc.
- Underground applications - retaining walls, planter boxes and garden areas.

- Immersed applications - ponds and water features.

## 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 but 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.

## Limitations

1. Duram Azcothane Reo is not designed as a trafficable membrane although infrequent maintenance foot-traffic would be acceptable. A protective coat of Duram Virotoff is recommended in trafficable areas eg; terraces, balconies, barbecue areas etc.
2. Given that Azcothane Reo incorporates micro-fibres, the elongation will be slightly reduced as compared with Azcothane.

## Benefits and Advantages

Duram Azcothane Reo is a versatile membrane suitable for many demanding waterproofing applications:

- Polyurethane fortified
- It meets the criteria of AS4858 Appendix A: Durability of Waterproofing Membranes and is applied in accordance with AS3740.
- Meets the 'Green Star' environmental criteria.
- Very low VOC levels.
- UV resistant - suitable for direct exposure to sunlight.
- Not a hazardous product and not flammable. Water based.
- Permanently flexible (tested to class 111 - highest extensibility) & strong.
- Formulated for wet area and under tile applications.
- Does not re-emulsify after proper curing.
- Tough, durable and flexible.
- Dries fast.
- Compatible with most tile adhesives.
- Easy to apply.
- Virtually odourless.
- Will not stain grout or tiles.

## Precautions in Use

The product is considered safe to use if used correctly, as intended and proper industrial hygiene and practices are used. Always observe safety precautions.

## Priming and Surface Preparation

Good preparation is essential. Surfaces must be sound, stable, dry, clean and free of dust, loose, flaking, friable material and substances that may diminish adhesion.

### Priming

Surfaces should ideally be suitably primed with Duram Primeseal applied at no less than 1 Lt per 4m<sup>2</sup> and allowed to dry. Duram Primeseal must be used for roofs and exposed areas, timber and particle board surfaces, bitumen or where there is a risk of entrapped moisture in the substrate which may cause the membrane to bubble. Duram Azcoseal can be used to reactivate an existing Acrylic coating prior to recoating with Azcothane Reo. (Test area is recommended).

Priming is adequate if the surface has a solid off-white appearance. Particle board and bitumen surfaces should be primed with 2 coats of Duram Primeseal.

Alternative primers such as Duram WB Primer or Duram Azcoseal, may be used in non-exposed areas and where the moisture content of the surface is very low. When Duram WB Primer is used it should be applied at no less than 1 Lt per 4m<sup>2</sup>. Allow WB Primer to fully dry before top coating.

Excessively porous, friable and dusty surfaces may require an additional priming coat.

Please refer to the product data sheets of the stated primers.

## Detailing Preparation

### Corners

Prime as required.

Apply an adequate flexible polyurethane sealant, in accordance the manufacture's instruction and tool off to form a solid, covered 45° fillet extending at least 10mm on to the adjacent surfaces. Allow sealant to cure. Apply the Duram membrane directly over the cured sealant and on the adjacent surfaces.

*For Additional waterproofing protection the following additional steps should be taken*

Lay a strip of Duram Leak-Seal Tape (stick-stick, butyl mastic waterproofing membrane with a polyester backed reinforcing fabric) over the cured polyurethane sealant (as described above) pressing it firmly on the surface. Apply the Duram membrane directly over the tape and on the adjacent surfaces.

### Joins, Gaps and Cracks

#### General

Joins, gaps and cracks should be suitably filled and sealed with an appropriate elastomeric sealant, preferably a polyurethane sealant, and allowed to cure.

*Recommendation:* The movement of small cracks should not be underestimated and should be at least covered with a flexible polyurethane sealant or additional coats of membrane.

#### Large or Live Cracks

Large cracks should be routed out to form a 'V' and then filled and sealed with a polyurethane waterproof joint sealant as per the manufacturer's instructions. The sealant should be finished slightly proud of the surface and allowed to cure.

After priming, as required, lay a strip of Duram Leak-Seal Tape over the join or crack pressing it firmly on to the substrate. The Duram membrane is then applied directly to the Duram Leak-Seal Tape and extending at least 75mm on to the adjacent surfaces.

If the Duram Leak-Seal is not used then a suitable bond breaker tape (such as duct tape) at least 48mm wide should be laid over the join or crack and apply a fully reinforced Duram membrane consisting of a base coat of membrane in to which the reinforcing fabric is embedded, a saturating coat of the Duram membrane ensuring that the fabric is entirely saturated and covered and then allowed to cure. At least one or two further coats are applied as per the Duram membrane's Product Data Sheet extending at least 75mm on to the adjacent surfaces.

#### Joins - Particularly in CFC Sheeting and Timber Sheeting

Ideally the sides of the sheets should be fully coated with a flexible polyurethane waterproof joint sealant prior to butting the sheets together.

If not, the joins should be suitably filled and sealed with an appropriate elastomeric polyurethane waterproof sealant and finished flush with or preferably slightly proud of the surface and allowed to cure.

After priming as required, lay a strip of Duram Leak-Seal Tape over the join, pressing it firmly on to the substrate. The Duram membrane is applied then as described under 'Large or Live Cracks'.

If the Duram Leak-Seal is not used then follow the procedure as described under 'Large or Live Cracks'.

### Waste Outlets, Penetrations and Angles

**Waste Outlets:** Floor wastes and puddle flanges should be rebated in to the floor to allow water to readily drain. Gaps and perimeters should be sealed with a polyurethane sealant.

**Plastic or metal angles:** Where required by the Building Code such as internal hobs and exterior door barriers and also plastic corner angels under wall boards, they should be securely embedded in to a continuous, gap free bed of a polyurethane sealant / mastic.

## Application

Stir well. Apply by brush, roller, soft broom or squeegee.

Apply in a minimum of two coats. To perform correctly the dry film thickness of the membrane must be at least 1.0mm to 1.2 mm, with each coat at least 500 microns (0.5mm).

The second coat should applied as soon as the first coat is dry and within 7 days, beyond which the first coat should be re-cleaned. Azcothane is suitable for use with a reinforcing fabric (Durascrim) and Leak Seal Tape.

### Reinforced System

In areas such as corners and over joins and cracks the membrane should be used in conjunction with a reinforcing fabric (Duram Durascrim or fibreglass matting). This application consists of applying a base coat in to which the reinforcing fabric is laid followed by the application of a saturating coat ensuring that the product is worked well in to the fabric and that no wrinkles or bubbles are present and that fabric is entirely saturated and covered with product. Allow to cure. Apply one or two further coats of products so that the dry film thickness is at least 2.00mm.

## Coverage

The stated average coverage rate may vary depending upon type, condition, porosity, texture of the surface and application technique.

### Duram Azcothane Reo

Unreinforced: Minimum 1.5 Lts to 1.8 Lts per m<sup>2</sup> ., i.e 0.75 Lts to 0.9 Lts per m<sup>2</sup> per coat. A 15 Lt pail will cover 10 m<sup>2</sup> for 2 coats at 1.0mm dry film thickness.

Reinforced: Minimum: 2.0 Lts per m<sup>2</sup>.

The dry film thickness of the unreinforced membrane must be at least 1.00mm and preferably 1.2mm, with each coat being at least 500 microns (0.5mm).

### Primers

Minimum 1 Lt per 4m<sup>2</sup>.

## Colours

Duram Azcothane Reo is available in White & Grey. Special colours available upon request but minimum orders will apply.

## Drying and 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.

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Duram Azcothane Reo is a fast drying water based product. Expected curing at 25°C at 50% RH: Touch dry: 4 to 6 hours per coat; Set: 12 hours; Full cure: 24 hours per coat. Ensure membrane is fully cured before tiling or topping.

## Storage

Store in cool, dry area. Product is not flammable. Do not allow to freeze. Shelf life - about 12 months. Available in 4 & 15 Lt pails.

## Clean Up

Wet spills can be cleaned with water, but spills should be avoided as it is difficult to remove entirely from porous surfaces.

## Tiling, Topping or Top Coating

Duram Azcothane Reo is compatible with most tile adhesives and 3:1 sand:cement beds. Ideally the beds should be sealed / waterproofed to prevent the bed absorbing and holding water. Selection of the tile adhesive should be compatible with the flexibility of the substrate. Tiling must be done in accordance with AS3958.1 and adequate expansion joints installed.

Azcothane Reo can withstand maintenance traffic. For any greater exposure to traffic, Virotuff should be applied over the Azcothane for protection.

## Safety & Precautions

Duram Azcothane Reo is user friendly and safe to use if used correctly as intended. Nevertheless, protect eyes and skin and observe the safety precautions on the can and data sheet.

For full safety data refer to the products Material Safety Data Sheet. Observe precautions as per label.

## Tests and Technical Data

Duram Azcothane Reo's formulation complies with AS4858 Appendix A: Durability of Waterproofing Membranes.

Elongation > 300% (Class 111 Extensibility)  
 Moisture Vapour Transmission 0.26 g/sq.m./24 hours  
 Tensile Bond 2N/mm after 14 days  
 Application temperature range 10 to 35°C

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### Conditions of Use and Disclaimer

The information contained in this Material Data Sheet is given in good faith based upon our current knowledge and does not imply warranty, express or implied. 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 Product Data Sheet 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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