



WATERPROOFING

MICROL

HEAVY DUTY WATERPROOFING MEMBRANE

**Roofs, Parapets, Car Parks, decks,
Balconies, Plant Rooms, gutters, Wet Areas**

Product Description

MICROL is a cold-applied, one-component waterborne liquid applied waterproofing membrane designed for external wet area waterproofing tanking applications. The product is made trafficable by the installation of chopped strand fibreglass matting as part of the membrane system.

Code / Standards

Product approved in accordance with AS4858:2004, CSIRO report No 4770, Class II Membrane and suitable for use relating to AS4654.1

Product suitable for application as specified :

NCC – Volume Two (class 1 and class 10 buildings): Part 3.8.1 Wet Areas and External Waterproofing

NCC – Volume One (class 2 to 9 buildings): Part F 1.7 Waterproofing of wet areas in buildings

AS 4654.2: 2012 Waterproofing membranes for external above-ground use - Design and installation

AS 3740: 2010 Waterproofing of Domestic Wet Areas



Characteristics

MICROL has been formulated to provide a seamless membrane which bonds to a variety of substrates when applied according to directions. Its resilience remains stable over a large temperature range and allows for considerable movement in bridging cracks.

MICROL provides chemical and mechanical damage resistance due to its high build and high solids characteristics. MICROL when fully cured will withstand ponding water and is resistant to mould, mildew and microbiological attack.

MICROL is a trafficable membrane when reinforced with fabric or fibreglass matting. The membrane surface remains flexible and is suitable for pedestrian and vehicular traffic. Point loading of furniture and sharp objects may cause damage and should be avoided.



QR code for Bond Breaker demonstration

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Waterproofing Best Practice

The NCC, AS3740 and AS4654.2 provide the minimum legal requirement. We support the "envelope" concept of ensuring water is contained and managed in wet areas using "best practice" applications. Waterproofing a greater area of coverage than required, plus applying a membrane to substrate and above the screed to fall.

Substrate Inspection / Acceptance

Prior to membrane application, the applicator must be satisfied with the condition of the substrate. Typically, check the floor and wall construction and materials meets the NCC and Standard. A sub-standard substrate is to be documented, with warranty void on waterproofing.

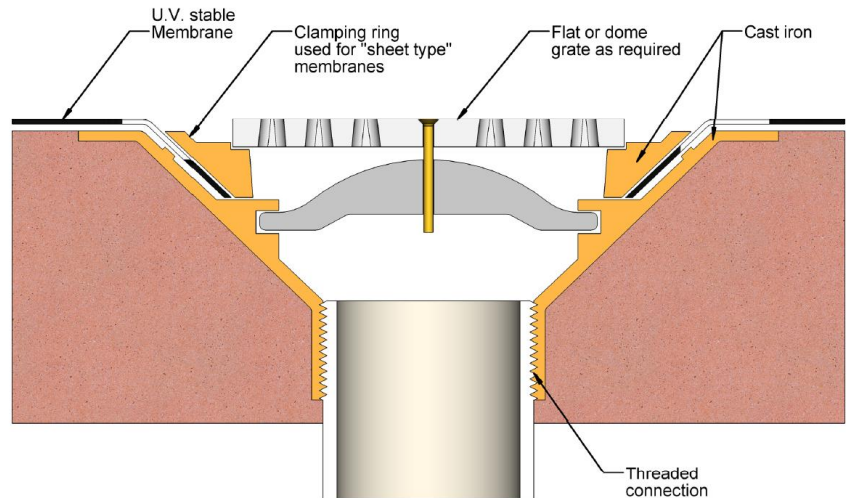
Falls Design / Check

Balcony falls shall not be less than 1:80

Floor finishes in other wet areas with a water drain are to be designed not to allow the water to pond, the minimum fall to the waste is 1:100

Drainage Connections

Follow manufacturers instructions of drainage flange and channel. When applying the membrane, a continuous coverage is to extend into the outlet.

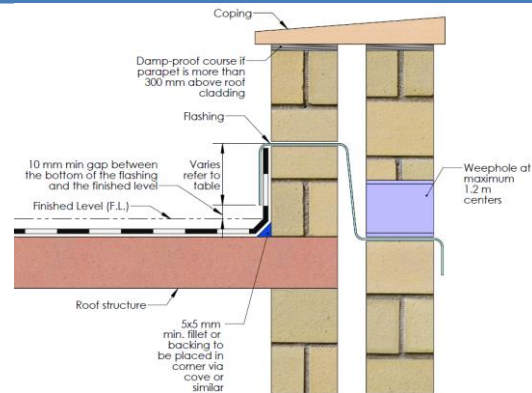


Expansion Joints

Expansion joints must be treated as such and a suitable caulking compound applied. Moving cracks and cracks in excess of 2mm wide need to be filled with a suitable caulking compound after removing any loose material.

Penetrations and Vertical walls

Treatment of Vertical terminations of membranes and the securing of Parapet Walls is outlined in AS4654.2. Vertical upward termination heights are nominated by wind class regions.



Bond Breaker

Bond breakers are to be installed all wall/floor junctions and movement joints where the membrane is bonded to the substrate.

Scan the QR code at the front of the brochure to provide a demonstration link.

TECHNICAL DATA



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Surface Preparation

- All substrates must be sound dry and free of dirt, oil, grease and other contaminants. Defects must be made good to give a smooth surface. New concrete must cure a minimum of 28 days. New brickwork and render must be left for 7 to 14 days.
- Because of the wide variety of substrate types and site conditions it is always advisable to check adhesion to the substrate by testing on a sample area before commencement.

Bond Breaker Detailing

Seal all joints and gaps with a suitable low modulus polyurethane sealant in accordance with the manufacturers instructions. Sanitary grade silicon's is optional. Pre-made bond breaker tapes are available or use reinforcing cloth - 135mm width centrally located and wet embedded over joint is required in all situations where movement may occur. For example shrinkage or structural cracks, penetrations and outlets, prepared joints or areas of high stress, joints in sheets, etc. Scan the QR code at the front of the brochure to provide a demonstration link.

Priming

Most surfaces should be primed. A versatile product is MICROL ACRYLIC PRIMER. Use UNISEAL for bituminous felts, and custom metal primers for metal. Alternatively, a practical primer for porous surfaces is MICROL diluted; 1 part to 2 parts water, allow 1 hour to dry. When moisture in the substrate is present use a water based Epoxy coating – DIMACOAT, as a moisture barrier.

Membrane Application

- The membrane may be applied by brush, roller or airless spray.
- Apply first coat of Microl to a small area to receive reinforcing mat. **While still wet** embed the reinforcing mat in the Microl with a dry roller or brush. Apply a further coat of Microl to the top surface to ensure the mat is completely saturated and no air is entrapped in the system.
- Apply multiple coats to achieve the desired thickness and allow to fully dry between coats. Target thickness is 1.5 mm.
- Material usage should be 1.2 to 2 litres per square metre a single coat to deliver approximately .5mm to .75mm thickness.
- Application should not be started if the area will be rain effected within 12 to 24 hours. If rain damage occurs re-coat damaged sections when dry.
- Waterborne membrane products must be allowed to cure completely and in depth prior to the application of tiles or similar products. Because environmental conditions fluctuate it is impossible to be concise when forecasting the curing time of the membrane. A minimum of 7 days must be allowed for external applications in cool, humid or wet weather. Lack of complete curing may result in the membrane re-emulsifying under paving.
- Tile and other paving mediums may be laid over the cured membrane surfaces on a cement mortar bed or with a 2 part water based adhesive.
- Membranes are best laid to falls with suitable drainage allowance.

Membrane Testing

Typically three membrane tests are applicable. First, if instructions are followed the dry film thickness (DFT) of MICROL should be 1mm to 1.5mm, often tested on sample board or bucket lid. Second, on completion, after membrane is fully cured, complete a flood test over 24 hours. Third, the consumption test; Qty. of litres used on the job, divided by the square metres of the job, multiplied by the number of coats, divided by the solids % of the product, equals DFT mm. e.g. 15 litres divided by 15m², multiplied by 2 coats, divided by 60% solids = 1.2mm DFT av. depth.

Membrane Curing

Typical failures from waterproofing have occurred from installing the tiling or pavers before the membrane is fully cured. The climate and location will affect the curing times.



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Product Advantages

- Elastic and crack-bridging characteristics
- Non-toxic and VOC compliant water based coating
- UV Stable
- Trafficable surface
- One component – ready to use
- Excellent adhesion on porous and non porous substrates
- Seamless waterproofing membrane
- Easy clean up with water
- Long shelf life
- Economical
- Chemical resistant
- Mould resistant

Certification

Application Certification of compliance to Standard is provided by the appropriate applicator. Product Warranty Statement is available on request, whilst implied by compliance with AS4858

Clean Up

Clean with water while wet & use paint stripper when cured.

Coverage

Apply at least 2 coats ensuring a minimum overall coverage of 1.2mm thickness (with fibreglass 1.5mm) which will deliver a consumption rate of <1litre per square metre.

Recommended DFT:

Balconies 1.2 to 2.0mm; Podiums 1.8 to 3.0mm; Roofs 1.2 to 3.0mm;

Water Features 1.8 to 3.0mm; Bathrooms 1.2 to 2.0mm

Packaging

MICROL is available in 15 litre, 5 litre and 2 litre pails

Shelf Life

12 months in dry cool conditions in sealed container

Colour

Grey as standard; Accent and Deep base product available to tint to any colour

Technical Data

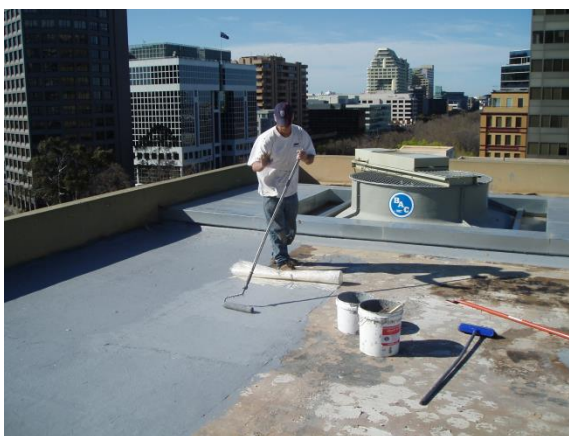
Tensile Strength = 1.97 MPa: Elongations at break = 160 %

Solids Content >60%: Water vapour transmission rate = 1.36g/m²/24hr

Drying time @ 25°C = 2-4 Days: Curing Time @ 25°C = 4 Days

Application Temp: 10°C - 30°C

Chemical Resistance: Good; Alkalis, Salt Solutions, Bleach, Detergents.



Member

Technical drawings supplied by AIW and MBA (NSW)



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