Product Data Sheet
Revision 2024

MICRAFLEX

EXTERNAL General Purpose WATERPROOFING MEMBRANE

Liquid applied membrane suitable for application to comply with AS4654.2

Balconies, Decks, Roofs, Box Gutters, etc.

Product Description

MICRAFLEX is a cold-applied, one-component waterborne liquid applied waterproofing membrane designed for external wet area waterproofing tanking applications.

Code / Standards

Product suitable for application as specified :
NCC 2022 – Volume Two (class 1 and class 10 buildings): Part H2 Damp and weatherproofing: H2D8 External Waterproofing
NCC 2022 – Volume One (class 2 to 9 buildings): Section F Health and Amenity: Part F1 Surface Water management, rising damp and external waterproofing : D5 External Waterproofing Membranes
AS 4654.2: 2012 Waterproofing membranes for external above-ground use - Design and installation

Characteristics

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

MICRAFLEX 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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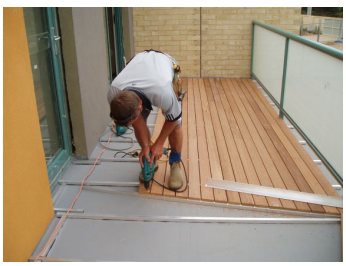
Certified Class II Membrane,

CSIRO Test Report SW8498 to AS4858.
CSIRO Test Report SW8498-02 to AS4654.1



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Waterproofing Best Practice

The NCC 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

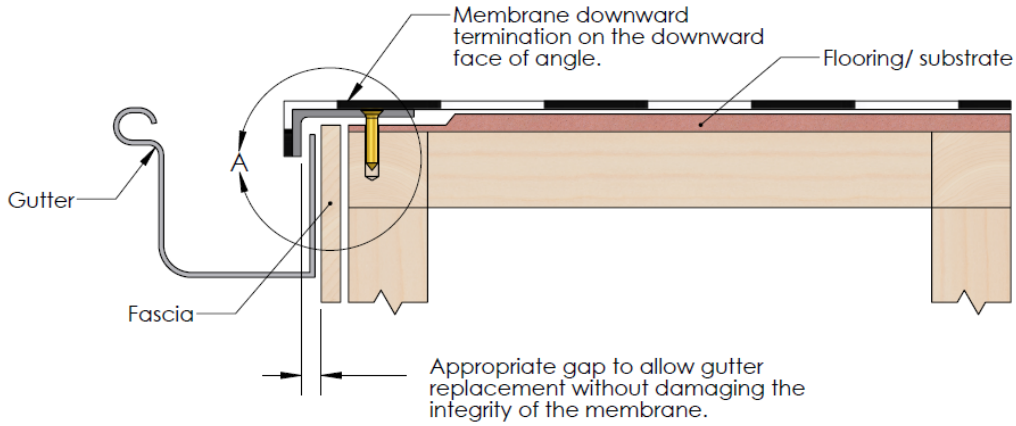
Prior to membrane application, the applicator must be satisfied with the condition of the substrate. Typically, check the floor and wall construction and materials meets the NCC and Standard. A sub-standard substrate is to be documented, with warranty void on waterproofing.

Falls Design / Check

Balcony area falls shall not be less than 1:80. If the substrate is not built with fall, a screed to fall should be created.
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 guttering and channel. When applying the membrane, a continuous coverage is to extend into the outlet.

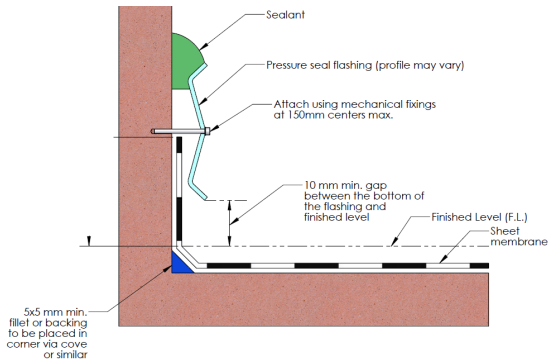


Penetrations

There are a variety of installation methods to compliment different Services. The minimum waterproofing application is outlined in the AS4654.2: 2012. Flashings are an important consideration as outlined in the Standard..

Vertical Joints & Parapets

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

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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 blockwork or 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.
- It is common practice to take and record a moisture meter reading of the substrate

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. Compatible Primers are Microl Acrylic Primer 2200, Microl Solvent Primer, Moisture Barrier – Dimacoat water-based Epoxy, or dilute MICRAFLEX; 1 part to 2 parts water, allow 1 hour to dry.

Membrane Application

- The membrane may be applied by brush, roller or airless spray.
- Apply multiple coats to achieve the desired thickness and allow to fully dry between coats. Target thickness is 0.8 to1.5 mm DFT.
- Material usage should be 1.5 to 2 litres per square metre a single coat to deliver approximately 0.4mm to 0.6mm thickness DFT.
- 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 MICRAFLEX should be 0.8mm 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 55% solids = 1.1mm DFT av. depth.

Membrane Curing

Typical failures from waterproofing have occurred from installing the tiling 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
- ❑ Nearly all tile adhesives bond well to MICRAFLEX
- ❑ Non-toxic and VOC compliant water-based coating
- ❑ UV Stable
- ❑ 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 and 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 and AS4654.1

Clean Up

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

Coverage

Apply at least 2 coats ensuring a minimum overall coverage of 0.8mm thickness, which will deliver a consumption rate of 1litre per square metre.
Recommended DFT:
Balconies 0.8 to 2.0mm; Podiums 1.2 to 3.0mm; Roofs 1.2 to 3.0mm;
Water Features 1.8 to 3.0mm

Packaging

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

Shelf Life

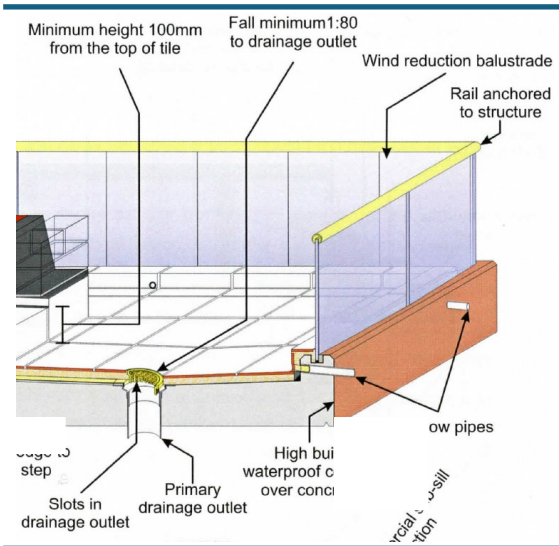
12 months in dry cool conditions in sealed container

Colour

Grey

Technical Data

Tensile Strength = 2.66 MPa: Elongations at break = 110 %
Solids Content >55%: Water vapour transmission rate = 5.29g/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.



Technical drawings supplied by AIW and MBA (NSW)

Australian Institute of Waterproofing

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