



WATERPROOFING

FLEXIPRO

BELOW GROUND WATERPROOFING MEMBRANE

Retaining Walls, Water Features, Planter Boxes, Ponds, Tanks, Bird Baths

Product Description

FLEXIPRO is a cold-applied, one-component waterborne liquid applied waterproofing membrane designed for below ground waterproofing tanking applications.

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



Characteristics

FLEXIPRO is a heavy black membrane that cures to a flexible and water insoluble coating. FLEXIPRO contains reinforcing fibres for sealing cracks and is suitable for below ground applications and water ponds or tanks without chemically treated water.

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

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



QR code for Bond Breaker demonstration

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FLEXIPRO

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

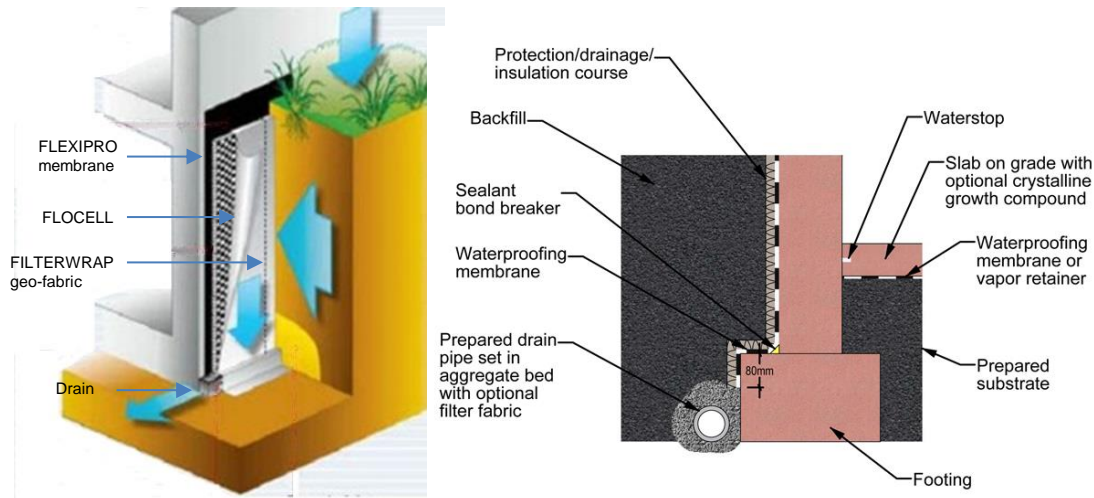
Prior to membrane application, the applicator must be satisfied with the condition of the substrate. Typically, check the floor and wall construction and materials meets the NCC and Standard. A sub-standard substrate is to be documented, with warranty void on waterproofing.

Masonry Core Fill

Core fill block work is recommended prior to tanking. Consideration to adding crystalline growth compound to the mix (Contec C1) will improve protection. Allow the core fill to fully cure before tanking with FLEXIPRO.

Drainage and Protection

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

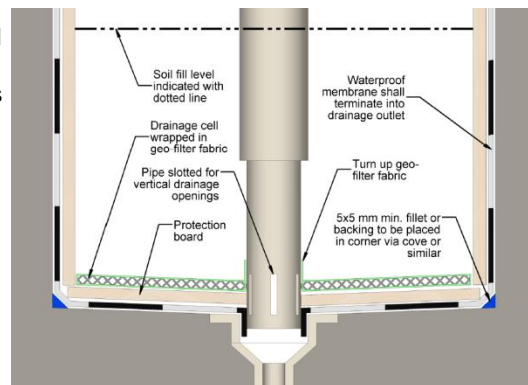
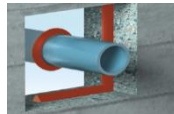


Penetrations

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..

Water Stop

A water stop locations are nominated in AS4654.2. However, typically footings and wall constructions, joints between wall and slab are most common.



Planter Boxes

Planter boxes require appropriate drainage and protection of the membrane outlined in AS4654.2

Hydrostatic Pressure

FLEXIPRO must **not** be used on the negative side of the wall, it is not designed to withstand hydrostatic pressure. Products to withstand hydrostatic / negative pressure are usually epoxy's (DIMACOAT) or cementitious membranes (SIKALASTIC 1K)

TECHNICAL DATA



FLEXIPRO

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 including masonry surfaces containing gaps and cracks. A versatile priming product is MICROL ACRYLIC PRIMER. Use UNISEAL for bituminous felts, and custom metal primers for metal. Alternatively, a practical primer for porous surfaces is FLEXIPRO diluted; 1 part to 2 parts water, allow 1 hour to dry. While this coat is still tacky fill gaps and cracks with FLEXIPRO mixed with sand and cement. Apply Polycloth reinforcing fabric with FLEXIPRO over the cracks. Allow to dry thoroughly before over coating (approx. 48 hours).

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 1.2 mm to 3mm.
- Material usage should be 1.5 to 2 litres per square metre a single coat to deliver approximately .5mm to .75mm thickness.
- The second coat should be brushed on at a 90° angle to the first coat
- 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. 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.
- Where reinforcing fabric is used, allow a day prior to applying a third and final coat at a 90° angle to the second coat.
- Protection boards or flow cell mediums may be laid over the cured membrane surfaces prior to backfilling.
- 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 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 backfilling or not installing protection board 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
- 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 and suitable for use relating to 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 1.2mm thickness, which will deliver a consumption rate of 1litre per square metre.

Recommended DFT:

Basements 1.8 to 2.0mm; Retaining Walls 1.8 to 3.0mm; Planter Boxes 1.8 to 3.0mm; Water Features 1.8 to 3.0mm; Lift Pits 3.0mm

Packaging

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

Shelf Life

12 months in dry cool conditions in sealed container

Colour

Black

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.



Technical drawings supplied by AIW and MBA (NSW)

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