



# TECHNICAL DATA SHEET

## AQUA-FLEX

### WPM C3



#### BENEFITS:

- WATER BASED
- ECO-FRIENDLY
- FAST DRYING
- UV STABLE
- DOES NOT REQUIRE FABRIC
- BATHROOMS
- BALCONIES
- SWIMMING POOLS
- STEAM ROOMS
- USE AS A CRACK SUPPRESSION MEMBRANE

| Coverage per 15L bucket         |
|---------------------------------|
| 15 – 20m <sup>2</sup> (2 coats) |

**TEN YEAR WARRANTY**  
**AUSTRALIAN STANDARDS COMPLIANCE CLASS III**  
**FOR USE IN CONTACT WITH DRINKING WATER**



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#### TECHNICAL PROPERTIES: AT 23°C

|                |                  |
|----------------|------------------|
| APPEARANCE     | Light Grey Paste |
| TIME TO RECOAT | 2 – 6 HOURS      |
| TIME TO TILE   | 18 - 24 HOURS    |
| FULL CURE      | 7 DAYS           |
| FLOOD TEST     | 7 DAYS           |

#### PERFORMANCE NOTES: CSIRO REPORT No. 5245 AS/NZS 4858:2004

|                     |       |
|---------------------|-------|
| CONTROL             | 331 % |
| WATER IMMERSION     | 608 % |
| DETERGENT IMMERSION | 411 % |
| BLEACH IMMERSION    | 836 % |
| HEAT AGEING         | 309 % |

#### PASS: CLASS III WATERPROOF MEMBRANE

#### AUSTRALIAN WATER QUALITY CENTRE

#### PASS: AS/NZS 4020:2005

#### FOR USE IN CONTACT WITH DRINKING WATER

**Available packaging:** 48x21kg plastic 15L pails.

#### Description:

**Aqua-Flex WPM C3** is a water-based, interior/exterior, PU modified waterproofing membrane engineered for use with ceramic tile and stone installation systems. It is a high performance polyurethane/acrylic hybrid, which is UV stable, ecofriendly, and flexible.

**Aqua-Flex WPM C3** is a Class III, international waterproofing building code of practice standards, lab certified, flexible, single component liquid membrane approved by the Australian CSIRO (NATA). Based on an advanced, polyurethane modified, water based polymer which is a proven solution for waterproofing applications. For use in roofing, basements, shower recesses, bathrooms, balconies, and swimming pools etc.

**Aqua-Flex WPM C3** cures to a permanently flexible seamless membrane that has excellent adhesion to a wide range of substrates. **Aqua-Flex WPM C3** does not go brittle with age,



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exposure to ultra violet radiation or weathering. Hence it does not crack or craze due to its flexible properties.

Since **Aqua-Flex WPM C3** it is elastomeric it is not adversely affected by extremes of temperature. Consequently it does not crack at low temperatures or suffer thermal flow at elevated temperatures. Hence **Aqua-Flex WPM C3** is suitable for hot or cold climates.

#### Uses:

**Aqua-Flex WPM C3** is suitable for use on many porous substrates including Gyprock, fibre cement sheet, concrete, brickwork, render and plasterboard.

**Aqua-Flex C3** can be used to water/damp proof basements, kitchens, bathrooms, balconies and decks, shower recesses, to repair and restore leaking roofs, and provide a damp proof membrane in a sandwich panel construction. It is also suitable for deck areas, planter boxes and retaining walls as long as they are protected by a drainage mat or corflute protection sheet. Also suitable for swimming pools and water features (consult ATA for full technical details for use in swimming pools).

#### Primer:

All areas to be waterproofed must be primed with **Aus-Bond Primer, Grout and Mortar Latex Admix**, or with diluted **Aqua-Flex WPM C3** for internal areas. For areas subject to negative hydrostatic pressure (such as swimming pools and water features), all substrates must have two coats of **Hydropel 2 Part Epoxy Primer** applied prior to applying **Aqua-Flex WPM C3**.

#### Surface Preparation:

Surfaces should be sound, clean and free of dust, oil, laitance, grease and curing compounds. Loosely adhered particles such as rust scale and cement smears should be thoroughly cleaned with a wire brush or another such implement.

#### Concrete:

All new concrete surfaces must be cured (4 weeks old) with a semi-rough surface appearance. Rendered surfaces must be allowed to cure for a minimum of 7 days prior to the commencement of waterproofing.

#### Bond Breakers:

**Aqua-Flex WPM C3** is a class III membrane and requires a 12mm bond breaker in internal corners.

#### Gypsum/Plasterboard Sheets:

Must be installed to the manufacturer's guidelines.



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#### Light Weight Decks:

When applying the membrane over a lightweight construction (timber and steel frames, cement sheet walls and floors), it is important to follow the guidelines and technical information supplied by the manufacturer. Some cement sheet suppliers recommend placing control joints directly over the joints in each of the sheets, some that the sheets should be epoxy jointed, while others state the sheets should have silicone or urethane joints.

Irrespective of all other information, we recommend that bond breakers be applied to all joints in the sheets to a minimum of 35mm wide. This can be achieved by using a paintable silicone or urethane sealant. On flat joints for walls and floors a 50mm wide polypropylene or polyethylene tape (duct tape) can be used to create a bond breaker.

All wall and floor building boards must be firmly fixed in accordance with the manufacturer's instructions and appropriate Australian Standards. Such boards include plasterboard, fibre cement sheeting, marine grade ply and wet area composition board. All screw or nail heads must be sealed with epoxy and all sheeting joints need to be covered with 50mm wide polyethylene or polypropylene tape.

When installing membranes on lightweight external decks that are to be tiled there are a few items that should be considered before starting the project.

- Type of floor sheeting (follow manufacturer's recommendations).
- Deflection of the deck under live loads. The deck should be rigid enough to accept tile or stone.  $L/360$  is the maximum allowable deflection for tile, this is 1mm deflection in 360mm and  $L/480$  for stone.
- Size of the tile or stone. The larger the tile or stone the more rigid the deck should be.
- Fall to waste outlets that remove standing water. It is recommended that a 1.25% fall, that is a 12.5mm in 1m fall be created to remove standing water.
- Rather than tile directly to the deck, a 40mm wire reinforced screed can be installed over a slip sheet on the deck, with the membrane and tile work installed above the screed. This is recommended by Australian Standards.
- Termination of the membrane to other finishes.
- Treatment of expansion joints. Membrane should loop down into an expansion joint to allow for additional movement.



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#### **Fibre Cement Sheets:**

Follow cement sheet manufacturer's recommendations for expansion joint set out. All joints in the cement sheet, whether they are silicone jointed together or epoxy jointed, must have a 50mm polypropylene or polyethylene tape placed directly over them prior to applying the membrane.

#### **Metal Surfaces:**

Ensure surfaces are rust free and primed with a suitable water based primer prior to applying the membrane.

#### **Primer:**

Metal surfaces need to be primed with a suitable water based primer. The primer can be applied with a brush, roller or squeegee depending on the size of the area required to be primed. Allow 10–30 minutes at 20°C for the primer to dry before commencing waterproofing with **Aqua-Flex WPM C3**.

#### **Method of Application:**

- 1) Remove all loose material by vigorous brushing, hydro-blasting, mechanical scabbling or by using a wire brush if necessary.
- 2) Treat any fungal growth with proprietary fungicide as recommended.
- 3) Allow surface to dry.
- 4) Install a 12mm bond break to all internal corners and 35mm tape over all joints in the cement sheet.
- 5) Fill cracks and voids with a mastic sealant or suitable cement based mortar.
- 6) Prime with primer (6-12 m<sup>2</sup>/L depending on substrate porosity) and apply membrane within 1-3 hours.
- 7) Once the primer is completely dry apply the first coat. When dried follow up with the second coat at right angles to the first coat, ensuring complete coverage. Please note that air bubbles trapped under the surface must be removed in order to achieve the maximum waterproofing effect. Apply a third coat if required.

**NOTE: DO NOT DILUTE ANY COAT AFTER THE PRIMER IS APPLIED**

- 8) **Aqua-Flex WPM C3** is to be applied at a minimum DRY FILM THICKNESS (DFT) of 1.2 mm, in 2 coats.



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- 9) Over the primed surface, apply two coats perpendicular to one another at a minimum coverage of 0.9 m<sup>2</sup>/L per coat.
- 10) When applying multiple coats, the previous coat should be touch dry. Note that cold temperatures will reduce the drying time, whilst hot temperatures will increase the drying time.
- 11) Ensuring that the surface is smooth and without pinholes, allow 24 hours at 20°C before applying a suitable tile adhesive. Please note that a third coat may be required if any imperfections are present in the membrane. All tile and stone must be installed in accordance with local standards.
- 12) **Aqua-Flex WPM C3** can be applied by brush or roller without the need to mix, stir or heat before application. **Aqua-Flex WPM C3** can be made into a spray-able grade waterproofing membrane.

#### **Cleaning:**

All tools and implements should be thoroughly cleaned with water immediately after use.

#### **Supplementary Notes:**

The dry film thickness (DFT) of **Aqua-Flex WPM C3** should not be less than 0.55mm or more than 1.0mm for each coat. Rough surfaces will reduce the coverage rate, consequently more material is required to achieve the minimum DFT.

Surfaces previously treated with silicone-based materials will inevitably be difficult to overcoat, and this should not be attempted with **Aqua-Flex WPM C3**. Substrates with poor adhesion to the underlying structure (e.g. blistered roofing felt) may also cause problems in providing sound over-coating. Preferential vapour drive in buildings must also be considered when over-coating the roof, and ventilation may be required to cope with the transmission of high levels of moisture vapour.

Coverage rates may vary with surface and porosity. The information given is based on average usage. A site trial is recommended.

Minor damage to **Aqua-Flex WPM C3** can be repaired by removing loose membrane, cleaning the surrounding area with water, priming the area with the primer overlapping by 150mm, and finishing with two coats of **Aqua-Flex WPM C3**.

For best results apply **Aqua-Flex WPM C3** when the temperature is between 5°C and 40°C.

#### **Expansion/Control Joints:**

Membranes should not be applied directly over expansion/control joints. Depending on the type of joint, the membrane should be pre-fabricated into 150mm wide strips with reinforcing mesh, and looped down into the joint to allow for additional movement without



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causing excess stress to the membrane. Alternately, a closed cell foam backer rod can be placed over the joint, and the membrane applied over the backer rod to allow for additional movement. Consult ATA for technical service if you have any questions. All expansion/control joints should be carried up through screeds and tile work and must conform to Australian Standards and good trade practices.

#### **Health, Safety and Handling:**

**Refer to the Safety Data Sheet for full, detailed instructions in accordance with the hazardous chemicals code of practice.**

Avoid contact with eyes and prolonged contact with skin. To avoid contact with skin and eyes wear protective clothing, goggles, gloves, safety shoes etc. If contact with eyes does occur, immediately flush with water and seek medical advice.

#### **Storage/Shelf Life:**

When stored in a cool, dry place the contents of the original unopened container can be used approximately twelve (12) months from the date of manufacture.

#### **Packaging:**

**Aqua-Flex WPM C3** is supplied in 5L and 15L pails.

#### **Warranty:**

“Australasian Tiling Adhesives Pty Ltd (“ATA”) warrants that **Aqua-Flex WPM C3** (“the goods”) will be free of defects for a period of up to seven years from date of installation, subject to the goods being utilised and installed strictly in accordance with Australian Standards and industry guidelines. The use of the goods is beyond the control of ATA and/or the supplier and the liability of ATA under this warranty is restricted only to the replacement of the material found to be defective. Structural failure of the substrate is not covered by this warranty and the manufacturer and/or supplier of the goods will not be liable for any damage whatsoever arising from the incorrect use of the goods. A warranty claim must be made in writing by email to [ [admin@ata.com.au](mailto:admin@ata.com.au) ] by you within seven days of becoming aware of the defect. Proof of purchase by you, the date of purchase, and evidence of who installed the product, with relevant contact details, must accompany all claims. In the event of a dispute arising in relation to a claimed defect, ATA reserves the right to engage an independent expert to investigate and report, and the cost of the expert will be borne by the party at fault. The benefits to you given by this warranty are in addition to other rights and remedies you may have under any law in relation to the goods to which the warranty relates. Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods replaced or



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repaired if the goods fail to be of acceptable quality and the failure does not amount to a major failure.”

**Contact Details:**

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