

A-PU600

Water Based Polyurethane | Waterproofing Membrane

DESCRIPTION

A-PU600 is a fully bonded, liquid-applied, non-trafficable polyurethane waterproof coating. It is a single-component, water-based membrane that cures to form a seamless, highly flexible film. With outstanding adhesion and crack-bridging capability, A-PU600 is suitable for both internal wet areas and external above-ground applications. Independent NATA testing confirms compliance with AS 4858 and AS 4654.1, achieving Class III classification for maximum extensibility. The product meets all requirements of the National Construction Code of Australia (NCC).

USES

- Bathrooms, laundries, kitchens, and internal wet areas
- Balconies, podiums, planter boxes, retaining walls, and external decks
- Window reveals and flashing details
- Tiling underlays and protective finishes over concrete, screeds, masonry, fibre cement sheeting, timber, and metal.

ADVANTAGES

- Water-based, single component – safe and easy to use
- Low odour, environmentally friendly, easy clean-up with water
- High flexibility (Class III membrane) – elongation >600% Plus
- Excellent adhesion to a wide range of substrates
- Resistant to water immersion, UV resistant, heat, detergent, and bleach
- Seamless application, eliminates weak points and joints
- Fast drying – reduces installation time



TECHNICAL DATA (NATA VERIFIED)

PROPERTY	RESULT
Elongation at break	678% (AS 4858, Internal) 636% (AS 4654.1, External)
Tensile strength	~0.80 MPa (AS 4858, Internal) ~0.73 MPa (AS 4654.1, External)
Cyclic movement	PASS (Internal: AS 4858, External: AS 4654.1)
Water immersion (56 days)	PASS (Internal: AS 4858, External: AS 4654.1)
Detergent immersion (56 days)	PASS (Internal: AS 4858, External: AS 4654.1)
Bleach immersion (56 days)	PASS (Internal: AS 4858)
Heat aging	82–105% elongation of control retained
UV resistance (1000 hrs)	93% elongation of control retained (AS 4654.1, External)
Moisture vapour transmission	2.78–3.02 g/m ² /24hrs
Abrasion resistance	0.01 mm loss (requirement <0.2 mm)

SUBSTRATE PREPARATION

All surfaces must be structurally sound, clean, dry, and free from laitance, dust, grease, oils, curing agents, loose particles, or any contaminants that may impair adhesion.

- **Concrete & Masonry:** Allow new concrete to cure for 28 days. Ensure moisture <75% RH or <5% by weight. Grind or shot-blast to remove laitance. Repair voids and cracks before priming.
- **Compressed Fibre Cement & Sheet Surfaces:** Install to manufacturer's recommendations with adequate support. Seal joints with appropriate sealant.
- **Approved Timbers & Particleboard:** Must be structurally sound, well fixed, and free of movement. Prime before applying membrane.
- **Metal Surfaces:** Remove rust, scale, or corrosion. Degrease and abrade shiny surfaces. Prime with suitable metal primer where required.
- **Existing Coatings:** Remove incompatible or unstable coatings. Clean and abrade sound coatings before overcoating.

IMPORTANT: Always prime porous or highly absorbent substrates with a suitable primer to avoid pinholing and ensure maximum adhesion.

PRIMING

- **Porous Substrates (concrete, masonry, CFC sheeting):** Apply a water-based acrylic primer or diluted A-PU600 (1:1 with water) to seal the surface. Allow primer to dry before applying membrane.
- **Non-Porous Surfaces (metals, plastics, glazed tiles):** Use a specialised epoxy or polyurethane primer. Abrade smooth surfaces before priming to ensure adhesion.
- **Timber & Particleboard:** Apply a penetrating primer compatible with polyurethane membranes. Ensure boards are well-fixed and stable.
- **Existing Membranes:** Ensure they are sound, cleaned, abraded, and primed with a compatible primer before overcoating.

NOTE: Priming is essential to ensure adhesion and long-term performance. Always follow primer manufacturer's recommendations.

CRACK TREATMENT

- **Static Cracks (non-moving):** Fill cracks up to 1 mm flush using a repair mortar, patching compound, or polyurethane sealant before priming. Ensure repairs have cured before applying A-PU600.
- **Dynamic Cracks & Movement Joints:** For moving cracks, expansion joints, or dissimilar material junctions, install bond breaker tape or reinforcing fabric embedded into the first coat of membrane. Use flexible sealants where appropriate.
- **Corners & Junctions:** Reinforce all internal corners, wall-floor junctions, and penetrations with bond breaker tape or reinforcing fabric to reduce stress points and prevent membrane failure.

NOTE: Failure to correctly treat cracks and joints may lead to premature membrane failure. Always address substrate movement prior to application.

APPLICATION INSTRUCTIONS

- Ensure substrate is clean, flat, and free of dust, oil, or loose material.
- Repair cracks, pinholes, and defects before application.
- Prime all areas in Armourseal primer = A-WB primer or A-2part Prime
- Bond breakers shall be either Armourseal MS Sealant and bond breaker, approved joint band tapes and Polyester fabrics = (contact Armourseal for approval methods prior to application - support@armourseal.net)
- Apply membrane until a Dry film thickness of 1.2mm is reached on the floor & upturn and 0.7mm Dry Film thickness is reached on the walls
- Embed reinforcing fabric at corners, joints, and penetrations where required.
- Recommended coverage: ~1.6 kg/m² to achieve ~1.2 mm dry film thickness.
- Touch-dry: 6–8 hours; Hard-dry: 18–24 hours at 23°C, 50% RH.
- Curing = Drying times can be affected by ventilation, temperature, type of surface, humidity and the application/technique used. Allow 96hrs/4xdays to reach full cure (Ensure membrane is fully cured prior to topping or tiling).
- Do not apply below 5°C or above 40°C. Protect from rain during curing.
- For large projects (>500 m²), use airless spray equipment.
- Single coat application can be achieved if the entire shower area floor, wall to floor junctions and floor joints have sealant as well as bedded in with reinforcement fabric.
A minimum 1.2mm dry film thickness must be reached.

APPLICATION TYPE	MINIMUM DRY FILM THICKNESS
Internal wet area floors	1.2 mm
Internal wet area walls	0.7 mm
External applications (balconies, podiums, decks)	1.2 mm

PACKAGING & SHELF LIFE

- Supplied in 15L x 18 kg bucket
- Shelf life: 12 months when stored unopened in original packaging.
- Storage: Store between 5°C and 30°C, protected from frost, rain, and direct sunlight.

STANDARDS & COMPLIANCE

- AS 4858:2010 – Wet Area Membranes (internal use).
- AS 4654.1:2012 – External Above-Ground Membranes.
- Tested and verified by Independent Testing Australia (NATA Accredited Laboratory, No. 21257).

SAFETY & CLEAN-UP

- Wear protective gloves, goggles, and clothing during application.
- Avoid skin and eye contact; wash thoroughly with water if contact occurs.
- Water-based, non-flammable, and not classified as hazardous.
- Clean all equipment with water immediately after use.

HEALTH & SAFETY

Always refer to the latest Safety Data Sheet (SDS) for full health and safety instructions. The SDS provides detailed information on safe handling, storage, personal protective equipment (PPE), and first aid measures. Avoid contact with skin and eyes. In case of contact, rinse immediately with clean water. Ensure adequate ventilation during application. Keep out of reach of children.

DISCLAIMER

The information and recommendations relating to A-PU600 are based on data believed to be reliable and provided in good faith. Armourseal makes no warranty, either expressed or implied, as to the accuracy or completeness of this information. It is the responsibility of the user to determine the suitability of this product for the intended application and site conditions. Armourseal's liability is strictly limited to the replacement of product proven to be defective. To the extent permitted by law, Armourseal accepts no liability for loss, damage, or injury arising from improper storage, handling, or application of the product. This document is subject to change without notice. Users should ensure they have the latest version of this Technical Data Sheet before use.

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