# Emer-Proof® Advanced

Technical Data Sheet

**(Previously known as Emer-Proof Aqua Barrier Advanced)**

## Highly flexible Class III, solvent free polyurethane waterproofing membrane.

## Uses

Emer-Proof Advanced is suitable for a wide range of waterproofing applications such as:

- Wet areas and shower alcoves – Class III Membrane System
- Podiums, terraces, balconies and deck areas – under toppings, tiles and other finishes
- Foot trafficable exposed roof top membrane and balcony decks (when over coated with Emer-Proof Top Coat)
- Sandwich membrane between existing and new substrates e.g. old to new concrete; cement screeds over concrete and CFC surfaces
- General areas exposed to moisture and damp conditions

## Advantages

- Can be flood tested after 48 hours @ 23°C/50% RH
- Low VOC
- Elastomeric and flexible with excellent elastic recovery
- Will not re-emulsify, once cured. Handles permanently wet conditions
- Low water absorption
- Low water vapour transmission properties
- Excellent adhesion to primed surfaces
- Compatible bonding properties for tile adhesives, screeds and renders
- Solvent free and non-hazardous
- Australian made

## Standards Compliance

Emer-Proof Advanced has been tested by CSIRO to the requirements of AS/NZS 4858:2004 Wet Area Membrane as a Class III membrane against AS 3740:2010 Waterproofing of Wet Areas Within Residential Buildings.

Emer-Proof Advanced meets the requirements of AS/NZS 4654.1 2012 Waterproofing membranes for external above-ground use Part 1: Materials.

## Description

Emer-Proof Advanced is a solvent free polyurethane membrane designed for a wide range of waterproofing applications in the built environment.

This single component membrane offers high performance elastomeric and tensile strength properties, along with excellent elastic recovery.

Emer-Proof Advanced is an alternative to solvent based and moisture curing polyurethane membranes for areas exposed to permanently wet conditions and offers outstanding low water vapour transmission properties.

Suitable for internal and external wet areas, enabling the direct fix of ceramic tiles, screeds, and renders over the dried membrane without bonding issues that solvent based polyurethane membranes present.

Emer-Proof Advanced offers excellent adhesion properties over most primed building substrates.

Emer-Proof Advanced is compatible with polymer modified cement based tile adhesive.

## Design Criteria

Emer-Proof Advanced is designed to be applied by thick brush or roller. Emer-Proof Advanced should be applied as two (2) coats with a total minimum WFT of 1.5mm (coverage of 1.5 litres/m²) resulting in a minimum DFT of 1.0mm.

## Specification Clause

Where required, a solvent free polyurethane liquid membrane is to be applied to offer a durable and waterproof area. The membrane must be very low VOC, Australian made and compliant with the requirements of a Class III membrane defined in AS/NZS4858:2004. The Emer-Proof Advanced meets the performance criteria and is an approved product.

## Properties

Data quoted is typical for this product, but does not constitute a specification.

### Wet form properties

| | |
|---|---|
| **Specific gravity of mixed product:** | 1.25kg/litre |
| **Solids content:** | >60% |
| **VOC content:** | <2g/litre |
| **Appearance:** | High viscous |
| **Colour:** | Green |

### Cured membrane properties

| | |
|---|---|
| **Elongation:** | >355% |
| **Tensile Strength:** | >2MPa |
| **Shore A hardness:** | 68 |

## Application Instructions

### Surface preparation

Surfaces must be dry, clean, sound, stable and free of loose foreign material; existing coatings; laitance; release agents; curing compounds and oil/grease residues.

All screw / nail heads must be sealed with Emer-Seal PU25 polyurethane sealant. All sheet joints must be covered with Emer- Proof Elastic Joint Band Tape and associated detailing accessories if required (e.g.internal or external corners and pipe detailing collars) or Emer-Seal PU25 as mentioned under cracks below. See Emer-Proof Elastic Joint Band system or Emer-Seal PU25 Technical Data Sheets.

Also remove any protrusions from the surface that may pierce the membrane.

### Priming

Substrates must be primed, prior to the application of Emer-Proof Advanced membrane:

Primer choice is defined by substrate condition:

- For porous masonry surfaces, Emer-Proof Primer Porous may be selected (see TDS for further details)
- For non-porous substrates, such as ceramic tile, metals, plastics, Scyon sheeting, CFC and wet area timber the use of Emer-Proof Primer Non-Porous may be selected (see TDS for further details)

### Cracks

Cracks larger than 2mm or structural shrinkage cracks must be firstly filled with a flexable polyurethane type sealant such as Emer-Seal PU 25 and then a 50mm wide polyethylene tape placed over the crack prior to the application of Emer-Proof Advanced.

Alternatively the cracks can simply be covered with the Emer-Proof Elastic Joint Band Tape system. See Emer-Proof Elastic Joint Band system Technical Data Sheet.

### Emer-Proof Elastic Joint Band system

The Emer-Proof Elastic Joint Band System has been developed as a superior bond breaker system to traditional sealants and bond breaker tapes.

The Emer-Proof Elastic Joint Band System includes tape (for change of direction – such as wall/wall and wall/floor joints etc.), both 270° external and 90° internal corners and an adjustable internal corner.

If being used in waterproofing applications, the Emer-Proof Advanced membrane requires a suitable bond breaker at all substrate junctions. Emer-Proof Elastic Joint Band System includes tape, corners and pipe penetration detailing squares or equivalent bond breaking methods compliant with local waterproofing standards and building recommendations. If a sealant is required, use Emer-Seal PU25 polyurethane.

### Mixing

Emer-Proof Advanced membrane should be lightly stirred before use.

### Membrane application

Ensure the surface has been appropriately prepared and primed.

Install Emer-Proof Elastic Joint Band tape / corners and accessories (as per separate Emer-Proof Elastic Joint Band system Technical Data Sheet).

Apply the first coat of Emer-Proof Advanced to the primed surface using a thick brush or roller.

After waiting the required 4 hours (@23°C) re-coat time, re-apply a second coat of Emer-Proof Advanced at 90° to the first coat, ensuring complete coverage is achieved and no air bubbles exist. A third coat may be required if imperfections are present in the membrane.

Conduct a final inspection on the surface of the membrane prior to commencing tiling to ensure no pin holes exist.

Once the waterproofing is completed, do not disturb the area for at least 24 hours.

Under good drying conditions, tiling can commence approximately 24 hours after last coat.

### Coverage

A minimum of 2 coats is recommended to be applied.

A total minimum coverage of 1.5 litres/m² (2 coats @ 0.75 litres/m² per coat) is recommended.

Total Wet Film Thickness = 1.5mm

Finished Dry Film Thickness = 1.0mm

### Drying Times

| | 23°C, 50% RH | 10°C, 50% RH |
|---|---|---|
| Recoat time | 4 hours | 6 hours |
| Dry film:: | 12 hours | 24 hours |
| Flood test: | 48 hours | 72 hours |
| Tiling / toppings: | 24 hours | 48 hours |

## Maintenance

No special requirements, any damage identified during normal inspections should be repaired or replaced as appropriate

## Limitations

Emer-Proof Advanced is UV resistant but is not designed for use as a long term exposed membrane, stand alone product.

However, over coating Emer-Proof Advanced with Emer-Proof Top Coat will not only protect the base membrane from UV degradation but will also provide a foot trafficable membrane system (please refer to Emer-Proof Top Coat TDS).

# Emer-Proof® Advanced

**Please Note:**

Application of all liquid applied membranes and primers should always refer to the surface temperature conditions before commencing and not just ambient temperatures. (There are limitations to how hot/cold the surface temperature can be, when applying a liquid based membrane or primer).

For example: ambient temperatures may be 10°C but the substrate could be 0°C and have frost issues. The same applies with higher temperatures: ambient temperature may be 26°C but have a substrate temperature of 35°C.

Emer-Proof Advanced should not be applied if the surface temperature is below 10°C or above 35°C.

Emer-Proof Advanced should not be applied externally if it is raining or if rain is imminent.

Polymer modified cement based tile adhesive is recommended for direct adhesion to the membrane.

## Cleaning

Product while in a wet state will clean up with water. Once dried, product will need to be removed by Xylene or by mechanical means.

Splashes of Emer-Proof water based membrane on paintwork etc. should be wiped off immediately using a cloth dampened with a strong detergent solution. Brushes and brooms etc. should be soaked in a strong detergent solution immediately after application has finished. Hands and skin may be cleaned using a proprietary waterless hand cleaner, but prevention of soiling is a better practice by wearing gloves and overalls.

## Supply

| | |
|---|---|
| Emer-Proof Advanced – 15L Pail<br>Coverage: 1.5L/m² (total) | FC043117-15L |
| Emer-Proof Primer Non-Porous – 4L Pail<br>Coverage: 1L/10m² | FC043123-4L |
| Emer-Proof Primer Porous - 4L Pail<br>Coverage: 1L/6-8m² | FC000581-4L |
| Emer-Proof Primer Porous - 15 L Pail<br>Coverage: 1L/6-8m² | FC000581-15L |
| Emer-Proof Elastic Joint Band Tape<br>120mm wide x 10m Roll | FC000691-UNIT |
| Emer-Proof Elastic Joint Band Corner<br>Internal 90° 135mm x 135mm | FC043270-UNIT |
| Emer-Proof Elastic Joint Band Corner<br>External 270° 135mm x 135mm | FC043275-UNIT |
| Emer-Proof Elastic Joint Band Corner<br>Adjustable Internal – 135mm x 135mm | FC043125-UNIT |

## Storage

Shelf Life is 18 months in the original unopened containers stored in cool, dry conditions at temperatures between 5°C and 30°C. Storage above this temperature may reduce storage life.





**Parchem Construction Supplies Pty Ltd**
1956 Dandenong Rd Clayton VIC 3168
Phone: 1300 283 668
www.emer.com.au
ABN 80 069 961 968

Distributed in New Zealand by: Concrete Plus Ltd
150 Hutt Park Road Gracefield Ph: 0800 657 156