

# Emer-Proof EcoSeal

## Next generation solvent free polyurethane membrane

### USES

Emer-Proof EcoSeal 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 (when over coated with Emer-Proof Top Coat)
- Foot trafficable exposed balcony decks (when over coated with Emer-Proof Top Coat)
- Foot trafficable exposed walkways, subject to regular foot traffic (when over coated with Emer-Proof Top Coat)
- Sandwich seal 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

- Low VOC (6 grams per litre)
- Australian made
- Can be flood tested after 24 hours @ 23°C
- 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 (such as Emer-Proof Tilebond Flex), screeds and renders
- Solvent free and non-hazardous
- Excellent chemical resistance

### STANDARDS COMPLIANCE

Emer-Proof Undertile meets the requirements of:

- AS/NZS 4858:2004 Wet Area Membranes as a Class III membrane
- AS3740: 2010 Waterproofing of Wet Areas Within Residential Buildings

### DESCRIPTION

Emer-Proof EcoSeal is a next generation 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 EcoSeal 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 EcoSeal also offers the distinct advantage of being able to be flood tested after 24 hours of curing (at 23°C / 50% RH).**

Emer-Proof EcoSeal offers excellent adhesion properties over primed building substrates including Scyon sheeting, CFC, ceramic tile, metals, plastics, PVC, concrete, masonry, renders, cement sheeting, wet area sheet surfaces, plaster board surfaces and a variety of other porous and non-porous surfaces (correctly primed and prepared).

Emer-Proof EcoSeal is fully compatible with Emer-Proof Tilebond Flex polymer modified cement based tile adhesive.

### TECHNICAL SUPPORT

Parchem offers a comprehensive range of high performance, high quality waterproofing and construction products. In addition, Parchem offers a technical support package to specifiers, contractors and end-users, as well as

on-site technical assistance.

## PROPERTIES

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

### WET FORM

Specific gravity of mixed product:	1.2kg/litre
Solids content:	>73%
Appearance:	High viscous
Colour:	Green

### CURED MEMBRANE

Elongation:	>355%
Tensile Strength:	>3.7MPa
Adhesion to concrete (primed):	>1.95MPa
Water vapour transmission:	<0.65g/24h/m <sup>2</sup>
Shore A hardness:	76

## COVERAGE

A minimum of 2 coats is recommended to be applied.

A total minimum coverage of 1.5 litres/m<sup>2</sup> is recommended.

Approximate total coverage: 1.5 litres/m<sup>2</sup>

Wet Film Thickness = 1.5mm

Dry Film Thickness = 1.2mm

## 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 EcoSeal from Parchem Construction Supplies meet the performance criteria and are approved products.

## DESIGN CRITERIA

The substrate must be suitably prepared, clean, sound, stable and free of protrusions in accordance with Parchem's instructions. It must be primed according to the substrate with either, Emer-Proof Multi-Purpose Primer and Additive for porous and Emer-Proof Non-Porous Primer for non-porous substrates.

The Emer-Proof Elastic Joint Band system should be installed first in accordance with the Technical Data Sheet for the system.

The stirred Emer-Proof EcoSeal is laid onto the surface continually in one direction and each successive coat should be applied perpendicular to the previous coat. Allow 2-4 hours for film to dry between coats, use a

minimum of 2 coats for a uniform total coverage of 1.5 litres per square metre. Inspect to ensure there are no pinholes.

The membrane must remain undisturbed for approximately 48 hours under standard conditions after the last coat. If tiling Emer-Proof Tilebond Flex tile adhesive may be used depending on the requirements of the selected tiles. For a system resistant to weather and pedestrian traffic Emer-Proof Top Coat should be applied over.

## APPLICATION INSTRUCTIONS

### SURFACE PREPARATION

Surfaces must be 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 either Emer-Seal PU25 or PU40 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/PU40 as mentioned under cracks below. See Emer-Proof Elastic Joint Band system or Emer-Seal PU25 / Emer-Seal PU40 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 EcoSeal membrane:

Primer choice is defined by substrate condition:

- For porous masonry surfaces, Emer-Proof Multi-Purpose Primer and Additive 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 Non-Porous Primer may be selected (see TDS for further details)

### DAMP SURFACES - ENTRAPPED MOISTURE

Seek technical advice from Parchem.

### CRACKS

Cracks larger than 2mm or structural shrinkage cracks must be firstly filled with a flexible polyurethane type sealant such as Emer-Seal PU 25 or PU40 and then a 50mm wide polyethylene tape placed over the crack prior to the application of Emer-Proof EcoSeal.

**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, CORNERS AND DETAILING ACCESSORIES

The Emer-Proof Elastic Joint Band System has been specifically developed by Parchem 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, an adjustable internal corner as well as three (3) size variations on pipe detailing squares (suitable from 6mm > 150mm pipe diameters).

Parchem also incorporate a fully fleeced, self-adhesive butyl rubber floor waste detailing collar that is suitable for all wet area leak control flanges, for optimum sealing capabilities.

If being used in waterproofing applications, the Emer-Proof EcoSeal membrane requires a suitable bond breaker at all substrate junctions. Parchem nominates the Emer-Proof Elastic Joint Band System which 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, Parchem nominate either Emer-Seal PU25 or Emer-Seal PU40 polyurethane sealants.

## MIXING

Emer-Proof EcoSeal membrane should be lightly stirred before use. It can be applied to both vertical and horizontal surfaces using a roller or brush.

## MEMBRANE APPLICATION

Ensure the surface has been appropriately prepared in accordance with Parchem's instructions.

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 EcoSeal to the primed surface using a thick brush or roller.

After waiting the required 2 to 4 hours (@23°C) re-coat time, re-apply a second coat of Emer-Proof EcoSeal 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.

Tiling can commence approximately 24 hours after last coat, in which case Emer-Proof Tilebond Flex tile adhesive should be used.

## MAINTENANCE

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

## LIMITATIONS

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

However, over coating Emer-Proof EcoSeal 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).

## DRYING TIMES

Recoat: 2-4 hours

Dry film: 8-12 hours

Tiling/toppings: 24 hours based on normal ambient conditions of 23°C

Allow a further minimum 24 hours of drying time @ 10°C

## 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 36°C

Emer-Proof Tile Bond Flex polymer modified cement based tile adhesive is recommended for direct adhesion to the membrane.

Emer-Proof Multi-Purpose Primer and Additive is recommended within screeds and renders directly over the membrane as a waterproof and adhesion enhancer.

## CLEANING

Product while in a wet state will clean up with water. Once dried, product will need to be removed by Solvent 10 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.

## PACKAGING

15L

## ESTIMATING

## SUPPLY

**743117 – Emer-Proof EcoSeal – 15L Pail (1.5L/m<sup>2</sup>)**

**743124 – Emer-Proof Non-Porous Primer – 1L Pail (1L/10m<sup>2</sup>)**

**743123 – Emer-Proof Non-Porous Primer – 4L Pail (1L/10m<sup>2</sup>)**

**743121 – Emer-Proof Multi-Purpose Primer and Additive**  
4L Pail (1L/6-8m<sup>2</sup>)

**743120 – Emer-Proof Multi-Purpose Primer and Additive**  
15 L Pail (1L/6-8m<sup>2</sup>)

**743118 – Emer-Proof Top Coat (Grey) – 15L Pail**  
Horizontal Application: (2 coats @ 1.5L per m<sup>2</sup> total)  
Vertical Application: (2 coats @ 1L per m<sup>2</sup> total)

**743119 – Emer-Proof Extended Wear Clear Coat – 15L Pail**  
(1L/8m<sup>2</sup>)

**307001 – Emer-Proof Tilebond Flex – 20Kg Bag**  
(9m<sup>2</sup> with a 10mm notched trowel)

**743265 – Emer-Proof Elastic Joint Band Tape**  
120mm W x 50M Roll

**743270 – Emer-Proof Elastic Joint Band Corner Internal 90°**  
135mm x 135mm – Each or 50/Box

**743275 – Emer-Proof Elastic Joint Band Corner External 270°**  
135mm x 135mm – Each or 50/Box

**743125 – Emer-Proof Elastic Joint Band Corner Adjustable Internal** – 135mm x 135mm – Each or 50/Box

**743126 – Emer-Proof Pipe Detailing Square Small**  
Each or 50/Box

**743127 – Emer-Proof Pipe Detailing Square Medium**  
Each or 50/Box

**743128 – Emer-Proof Pipe Detailing Square Large**  
Each or 50/Box

**743129 – Emer-Proof Butyl Square Floor Waste Detailing Collar** – Each or 25/Box

**405015 – Emer-Proof Aquabarrier (Grey) – 20L Two Part Kit**  
(1L/1.5m<sup>2</sup> per coat)

## STORAGE

### SHELF LIFE

12 months if kept in a cool, dry store.

### STORAGE CONDITIONS

Store in dry conditions at temperatures between 5°C and 30°C in the original, unopened containers. If stored at high temperatures, the shelf life may be reduced.

## IMPORTANT NOTICE

A Safety Data Sheet (SDS) and Technical Data Sheet (TDS) are available from the Parchem website or upon request from the nearest Parchem sales office. Read the SDS and TDS carefully prior to use as application or performance data may change from time to time. In emergency, contact any Poisons Information Centre (phone 13 11 26 within Australia) or a doctor for advice.

## PRODUCT DISCLAIMER

This Technical Data Sheet (TDS) summarises our best knowledge of the product, including how to use and apply the product based on the information available at the time. You should read this TDS carefully and consider the information in the context of how the product will be used, including in conjunction with any other product and the type of surfaces to, and the manner in which, the product will be applied. Our responsibility for products sold is subject to our standard terms and conditions of sale. Parchem does not accept any liability either directly or indirectly for any losses suffered in connection with the use or application of the product whether or not in accordance with any advice, specification, recommendation or information given by it.

## ADDITIONAL INFORMATION

Parchem provides a wide range of complimentary products which include:

- waterproofing membranes – liquid applied, cementitious and bituminous sheet membranes
- architectural coatings
- joint sealants – building, civil and chemical resistant
- waterstops – pvc and swellable
- industrial flooring systems – cementitious and epoxy
- concrete repair – cementitious and epoxy
- filler boards – swellable cork, bituminous and backing rod
- grouts and anchors – cementitious and epoxy
- ancillary products

For further information on any of the above, please consult with your local Parchem sales office.