

Technical Data Sheet

Emer-Proof 750

High performance, tough, flexible, polyurethane waterproofing membrane, for internal and external under tile areas

USES

The high elasticity, excellent bond and low water permeability of Emer-Proof 750 make it ideal for a wide range of water/vapour proofing applications such as foundations, basements, tunnels, ground floors, suspended floors, roof terraces, balconies, patios, bridges, inspection pits, sewage works, inverted roofs, bathrooms and wet areas.

ADVANTAGES

- Pitch free formulation
- CSIRO approval and meets AS4858:2004
- Non-staining
- Readily applied direct from can
- Cures to give permanently flexible resilient barrier over a wide range of temperatures
- Excellent build properties enable application to both horizontal and vertical surfaces
- Can be applied to a wide range of substrates
- Outstanding barrier properties ensure protection against corrosive soil conditions
- Irreversible chemical cure eliminates melting and flow at high temperature
- Excellent resistance to embrittlement

DESCRIPTION

Emer-Proof 750 is a single-component polyurethane liquid which cures by reaction with atmospheric moisture to give a tough elastomeric waterproof membrane. It is supplied as a thixotropic liquid which is easily applied at the recommended thickness to both vertical and horizontal surfaces.

DESIGN CRITERIA

Emer-Proof 750 is designed to be applied by roller, trowel or squeegee to achieve a wet film thickness of not less than 1.5 mm (approx. 1.3 mm dry film thickness).

PROPERTIES

Form:	Single-component viscous liquid
Colour:	Black and Grey
Solids content:	90% (+/- 2%)
Elongation at break:	>600%
Physical or chemical change:	Chemical cure by reaction with atmospheric moisture
Tack free time at 20°C 50% RH:	16 hours
Full cure time at 20°C 50% RH:	36 hours at 1.5 mm WFT
Application temperature:	5 - 40°C
Service temperature (continuous ambient):	Minus 40°C - 90°C



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Emer-Proof

PARCHEM	CONCRETE REPAIR	FLOORING	JOINTING SYSTEMS	WATERPROOFING
TECHNICAL DATA SHEET	FEBRUARY 09			
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CHEMICAL RESISTANCE

Emer-Proof 750 is unaffected by a range of mild acids, alkalis, water borne salts, and is resistant to bio-degradation. Highly resistant to detergents and bleach based cleaning products. Contact Parchem Technical Services for specific chemical data.

MAINTENANCE

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

SPECIFICATION CLAUSES

Where so designated on the drawings, surfaces shall have a liquid applied, moisture curing, elastomeric waterproof membrane applied at a minimum dry film thickness of 1.3mm. The membrane must be pitch and bitumen free, be capable of greater than 600% elongation (ASTM D412) and have a solids content of greater than 85%. The membrane shall be Emer-Proof 750. Areas shall be prepared and the membrane applied in accordance with the current Emer-Proof 750 Technical Data Sheet. The material used must be independently tested, approved and conform to AS4858:2004.

APPLICATION INSTRUCTIONS

Emer-Proof 750 should be applied by roller, trowel or squeegee directly onto the surface to achieve a wet film thickness (WFT) of not less than 1.5 mm. This 1.5 mm is in addition to the preparatory work. Depending on the circumstances, the total 1.5 mm WFT is preferably achieved in two coats to minimise the possibility of areas being thinly coated.

Internal wet areas should be waterproofed in accordance with AS3740.

SURFACE PREPARATION

All surfaces to be waterproofed must be clean, sound, dry and free of all surface contamination such as form release agents and curing compounds.

Moss and lichen must be removed physically, followed by treatment with a solution of household bleach (1 part bleach to 2 parts water) to kill any spores and inhibit further growth. Bleach must be thoroughly washed off with clean water and the substrate allowed to dry.

Concrete surfaces should be smooth and any imperfections repaired with a suitable cementitious repair mortar. Small blow holes must be filled with either a heavy coat of Emer-Aquashield or a prime coat of Emer-Proof 750 as described below.

Laitance should be removed from concrete by grit blasting or wire brushing.

All metal surfaces should be clean and free of paint, oils, rust and other contaminants. Abrade the surface to expose bright metal then wipe clean with Parchem Solvent. Prime with Primer 4 and allow to dry prior to coating with Emer-Proof 750.

PRIMING

Priming is not normally required on good quality concrete substrates. Highly absorbent, pitted surfaces or surfaces containing small blow holes are best sealed using a heavy coat of Emer-Aquashield, or alternatively, a coat of Emer-Proof 750 cut with up to 40% Parchem Solvent. Both of these priming systems must be scrubbed into absorbent surfaces such as porous concrete or sand/cement screeds to seal pin holes and reduce excess absorption of Emer-Proof 750. Inadequate priming will be indicated by pin holes reflecting through the waterproofing membrane. Allow the prime coat of Emer-Aquashield or Emer-Proof 750 to dry for a minimum of 3 hours for ambient temperatures above 20°C or 6 hours below 20°C. Emer-Aquashield should not be applied below 10°C..

Use Primer 4 for metal, and Primer 9 for PVC surfaces. All metal and PVC surfaces should be cleaned and abraded prior to priming. After application, Primer 4 & 9 should be allowed to dry for a minimum of 15 minutes before the application of Emer-Proof 750.

MOVEMENT JOINTS

All expansion and movement joints should be sealed with a suitable sealant, such as Emer-Seal PU 25. Consult Parchem Technical Services for advice on the best method for your application.

CRACKS

Before application of Emer-Proof 750 across a crack, a 50 mm wide polyethylene bond breaker tape should be applied over the crack.

All shrinkage and non-moving structural cracks should be pre-treated with not less than a 1.5 mm thick coating of Emer-Proof 750 extending 100 mm either side of the crack.

Allow all pre-treatment areas to cure before general application of the membrane.

RIGHT ANGLE BENDS

A coving detail can be formed by the application of a bond breaker tape to the corner followed by the application of one coat of Emer-Proof 750, allow the first coat to cure overnight before general application of the membrane.

A coving detail can also be formed by the application of a bead of Emer-Seal PU25 which has been allowed to skin before general application of the membrane.

CURING AND PROTECTION

Emer-Proof 750 is not UV stable and must be cured for a minimum of 24 hours at 25°C before placing protection. Tiling should commence within 5 days.

Where damage to the membrane is possible (by traffic backfilling, etc.), it should be protected by a cementitious screed or protection board such as Tema Tefond.

FLOOD TEST

Prior to placement of protection, flood to a minimum depth of 50 mm of water for 24 hours. Drains should be plugged and barriers placed to contain the water.

On large decks where the membrane is to be covered with a self supporting concrete screed which may be exposed to thermal or shrinkage movement, two layers of plastic sheeting must be laid over the entire membrane surface to act as a slip sheet system.

TILING

In applications where ceramic tiles are to be laid over Emer-Proof 750, a cement based screed may be laid over the membrane to create the required falls, or tiles may be bonded directly* to the membrane using Emer-Proof Tilebond Flex.

Where a screed is installed, the normal range of suitable tile adhesives may be used. In applications where the tile adhesive is to be bonded directly to the membrane, either on walls or floors, care must be taken to ensure that the tile adhesive offers long term compatibility with and adhesion to, both the membrane and the tile.

The selection of a suitable tile adhesive will depend on a range of factors including the type of tile, the rigidity of the substrate, the likelihood of future structural movement, and whether tiles are to be directly bonded to the membrane.

* In applications or when tiles are to be bonded to a cementitious screed, Tilebond Flex, a cement based tile adhesive may be used. If Tilebond Flex adhesive is to be used directly in contact with the membrane, the membrane **must be seeded with a coarse sand** (30/60 or 16/30) into the final wet coat of membrane. The final coat of Emer-Proof 750 must be sand seeded to blind the surface. Any loose or excess sand must be vacuumed away before applying Tilebond Flex or Unibond.

Where third-party tile adhesives are to be used over Emer-Proof 750, the tiler must take care to ensure the compatibility of the selected materials.

CLEANING

Tools and equipment should be cleaned with Parchem Solvent immediately after use.

LIMITATIONS

Emer-Proof 750 must not come in contact with bitumen surfaces. In applications where trace quantities of bitumen are present, a prime coat of Emer-Aquashield may be used to isolate the bitumen. Contact Parchem Technical Services for specific advice in these circumstances.

Emer-Proof 750 is not suitable for long term exposure to sunlight. Emer-Proof 950 or Index sheet membranes should be considered in UV exposed applications.

ESTIMATING

PACKAGING

Emer-Proof 750:	15 litre and 4 litre drum
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Primer 4 & 9:	250 ml can
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Tilebond Flex:	20 kg bag
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COVERAGE

Emer-Proof 750:	1.5 litres/m ² (Total 2 coats) 10 m ² / 15 litre drum
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Primer 4 & 9:	40 - 60 m ² /litre on non porous surfaces
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Tilebond Flex:	12 - 14 m ² with a 6 mm notched trowel
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Note: Coverage rate for Emer-Proof 750 is based on two coats to give a total WFT of 1.5mm. These are theoretical yields. No allowance has been made for wastage.

STORAGE

9 months in the original unopened containers stored in cool, dry conditions i.e. not exceeding 25°C. Storage above this temperature may reduce storage life.

Note: surface skin may occur even in unopened containers. This skin should be completely removed before using the product.

ADDITIONAL INFORMATION

Parchem provides a wide range of complementary products which include:

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

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

IMPORTANT NOTICE

A Material Safety Data Sheet (MSDS) and Technical Data Sheet (TDS) are available from the Parchem website or upon request from the nearest Parchem sales office. Read the MSDS 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.

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