

High performance, bituminous self adhesive heat resistant membrane

### Uses

Emer-Proof HD is used to waterproof bridge decks, ramps, car parks, and road pavements where the membrane will be overlaid with hot asphalt.

### Advantages

- Self adhesive - allows installation without the use of heating torches while providing a fully bonded membrane system
- Suitable for the application of hot asphalt up to 165°C directly over the membrane
- Uniform thickness - eliminates any likelihood of thin application commonly found with liquid applied membranes
- Contains a polypropylene mesh for extra strength, puncture resistance and dimensional stability
- Seldge strip provides bitumen to bitumen seal at longitudinal joints ensuring watertight seal

### Description

Emer-Proof HD is a self adhesive bituminous membrane incorporating a polypropylene mesh for added strength and heat stability. The bitumen compounds used to manufacture the product are modified with SBS to promote maximum elasticity. The top face of the membrane is treated with a protective film which is removed prior to use, for ease of application and handling.

### Maintenance

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

### Specification Clauses

Where so designated on the drawing, surfaces shall have a self-adhesive SBS modified bituminous waterproof membrane applied. The membrane shall have a total thickness 1.65 mm and incorporate a polypropylene mesh and a top layer protective film. The membrane must have a tensile strength of not less than 9 MPa, and an elongation at break greater than 50%. The puncture resistance must be greater than 900 N (ASTM E154) and the adhesion to primed concrete must be greater than 4MPa.

Such a product is Emer-Proof HD as supplied by Parchem. Areas shall be prepared and the membrane applied in accordance with the current Emer-Proof HD data sheet, paying attention to priming requirements. Both the manufacturer and supplier must be ISO 9001 accredited.

### Properties

Test method	Typical Values
<b>Thickness</b> ASTM D751	1.65mm ± 0.15
<b>Total Weight</b> ASTM D751	1.75kg/m <sup>2</sup> ± 0.15
<b>Tensile Strength</b> ASTM D412	≥ 9.0 MPa
<b>Breaking Strength</b> ASTM D1000 ASTM D412	≥ 5.0 MPa ≥ 12.0 MPa
<b>Elongation at Break</b> ASTM D1000 ASTM D412	50% 22 +/-3%
<b>Puncture Resistance</b> ASTM E154 (ASTM D1709)	900 N
<b>Adhesion</b> ASTM D1000	4.0 N/mm
<b>Water Vapour Transmission Rate</b> ASTM E96	0.07 g/m <sup>2</sup> .hr
<b>Permeance (Water Method)</b> ASTM E96	1.61 x 10 <sup>-8</sup> g/Pa.m <sup>2</sup> .s
<b>Hydrostatic Pressure Resistance of Waterproofing Membranes</b> ASTM D5385	≥655 kPa.hr
<b>Water Penetration Joint</b> MOAT 27.5.1.4	Nil %
<b>Dimensional Stability</b> MOAT 27.5.1.6 Longitudinal: Lateral:	-0.1 % -0.2 %
<b>Recommended Temperatures Application: Service:</b>	+ 5 to + 45°C - 10 to + 95°C

# Emer-Proof® HD

## Application Instructions

### Surface preparation

All surfaces to which Emer-Proof HD is applied must be smooth and free from contaminants and any loose material. Rough concrete should be “faired up” before membrane application.

### Priming

Emer-Proof Self Adhesive Primer should be applied at the rate of 6 - 8 m<sup>2</sup> per litre to surfaces which will have Emer-Proof HD applied. The coverage rate for the primer will vary depending on the porosity of the surface being treated. Allow the primer to dry for a minimum of 30 minutes and a maximum of 8 hours, at temperatures of 25°C and above; the primer must be touch dry. Longer drying times will be required at lower temperatures. Priming should only be carried out on surfaces which will be covered with Emer-Proof HD on the same day.

### Application

Planning the installation of the membrane is important to ensure joins occur in suitable locations and not at corners and penetrations.

Longitudinal overlaps should be 50 - 60 mm and transverse laps 70 - 80 mm. Unroll and cut membrane to the required length.

Application of the membrane should always start from the lowest point on a surface to ensure laps are self-flashing. Apply suitable lengths of Emer-Proof HD membrane by first carefully aligning the roll and applying an initial 300 mm of material, then pull the siliconised release paper and press the membrane on to the prepared surface. Take care not to incorporate air bubbles under the membrane or wrinkles in the membrane. Using a small roller, ensure that all edges and overlaps are forming proper seals and installed in a manner where they will be self-draining.

When finishing the membrane into perimeter flashings or around penetrations, use Nitoseal MB175 (formerly Plastiseal), a bituminous rubber mastic to assist in achieving a waterproof seal.

### Kerb and Termination Edges

Kerb flashing strips should be applied to a joint just below the height of the asphalt concrete overlay and a minimum of 150mm on the deck. Then apply the first full sheet as close as possible to the kerb. A fillet should be provided at the kerb and parapets to avoid a sharp break at these points.

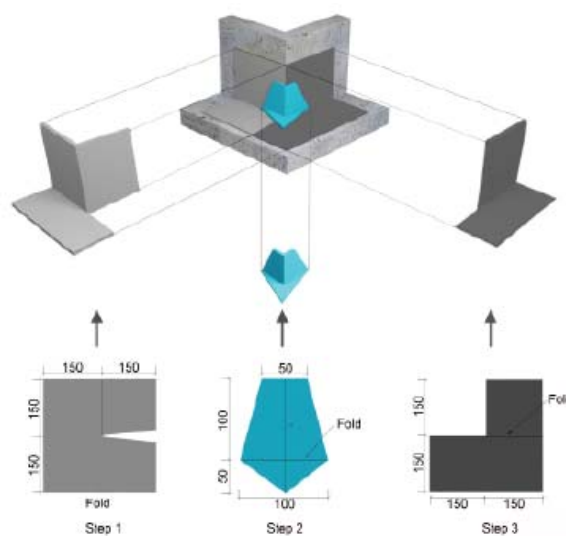
The fillet material (latex modified cement mortar) should be well adhered to the deck and kerb or parapet. Preformed cant strips are not recommended.

### Asphalt Overlay

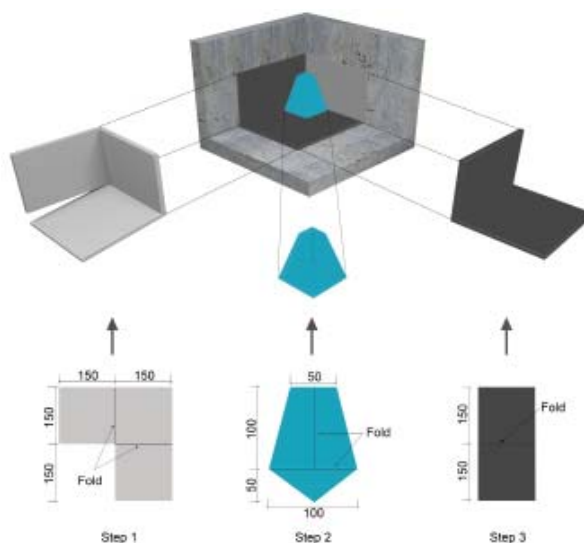
The asphalt concrete overlay should be placed as soon as possible after application of Emer-Proof HD. A minimum of 50 mm compacted overlay is recommended. The preferred asphalt concrete temperature in the paving machine hopper is 140°C

to 160°C. Preformed protection courses such as roofing felts or asphaltic hardboard are not recommended. Paving must not be started following rain until the membrane surface is dry. Only asphalt concrete delivery equipment should be permitted on the membrane prior to placement of the asphalt concrete.

Flat tracked or pneumatic tire equipment may be used. In the event of skidding of the pneumatic tire machine during warm weather, broadcast a very small amount of fine sand or cement in the tire paths. Excess use of cement or sand could prevent adhesion of the asphalt concrete.



External Corner Detail



Internal Corner Detail

# Emer-Proof® HD

## Compatibility

Emer-Proof HD is incompatible with certain fresh tars, pitches, liquid waterproofing and sealants which contains tars or polysulfide polymer. Avoid direct contact of the adhesive layer of Emer-Proof HD with such systems.

## Protection

Emer-Proof HD is not suitable for long term UV exposure. The membrane should therefore be protected in some way within 3 months of application.

If the membrane is to be covered with a concrete topping slab, a slip sheet system must be used. A slip sheet is not necessary when the membrane is covered with asphalt.

When the membrane is to be backfilled such as with basement applications, Emer-Proof HD should be protected from physical damage by using Emer-Proof Drain V drainage/protection system also available from Parchem.

## Limitations

Do not apply Emer-Proof HD to uncured "green" concrete or to concrete with high moisture content levels. In such applications blistering of the membrane may occur due to vapour pressure building up at the interface of the membrane and the substrate. Similarly, Emer-Proof HD should not be applied to substrates subject to hydrostatic pressure from below the membrane.

## Supply

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<b>Emer-Proof HD:</b>	1 metre wide, 20 metre long roll
Material code:	FC042038-UNIT

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<b>Emer-Proof Self Adhesive Primer:</b>	20 litre pail
Material code:	FC042041-20L

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## Coverage

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<b>Emer-Proof HD:</b>	approx. 18.9 m <sup>2</sup> / 20 m roll allowing for overlaps
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<b>Emer-Proof Self Adhesive Primer:</b>	6 - 8 m <sup>2</sup> / litre
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Note: No allowance has been made for wastage.

## Storage

12 months in original packaging stored in cool, dry conditions i.e. not exceeding 25°C. Storage above this temperature may reduce storage life. Membrane rolls must be stored upright.

## 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.

