Emer-Proof® HDPE

Technical Data Sheet

High performance, bituminous self adhesive waterproofing membrane

Uses

Emer-Proof HDPE is used to sub-structure, basements, retaining walls and tunnels.

Advantages

- Self adhesive - allows installation without the use of heating torches while providing a fully bonded membrane system
- Uniform thickness - eliminates any likelihood of thin application commonly found with liquid applied membranes
- Cross laminated High Density Polyethylene (HDPE) carrier film ensures dimensional stability whilst allowing adequate flexibility during installation and service
- Selvedge strip provides bitumen to bitumen seal at longitudinal joins ensuring watertight seal
- Excellent adhesion

Description

Emer-Proof HDPE is a self-adhesive bituminous membrane incorporating a cross laminated HDPE film. The bitumen compounds used to manufacture the product are modified with SBS to promote maximum adhesion to the substrate.

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 modified bituminous waterproof membrane applied. The membrane shall be 1.6 mm total thickness, incorporate a cross laminated HDPE film and utilise a selvedge strip to ensure bitumen to bitumen bond at longitudinal joins.

Such a product is Emer-Proof HDPE as supplied by Parchem. Areas shall be prepared and the membrane applied in accordance with current Emer-Proof HDPE data sheet, paying attention to priming requirements.

Both the manufacturer and supplier must be ISO 9001 accredited.

Properties

Test method	Typical Values
Thickness ASTM D751	1.5mm ± 0.20
Total Weight ASTM D751	1.6kg/m^2 ± 0.15
Breaking Strength ASTM D1000	≥ 5.0 N/mm
Elongation at Break ASTM D1000	300%
Puncture Resistance ASTM E154	230 N
Impact Resistance ASTM G14	1.3 J
Tear Strength ASTM D1004	30 N
Adhesion Strength ASTM D1000	≥ 3.0 N/mm
Water Vapour Transmission ASTM E96	0.30 g/m^2.24hr
Water Penetration Joint MOAT 27.5.1.4	Nil %
Dimensional Stability ASTM D1204	-0.2 %
Recommended Temperatures Application:	+ 15 to + 45^{O}C
Service:	- 10 to + 95^{O}C

Application Instructions

Surface preparation

All surfaces to which Emer-Proof HDPE is applied must be smooth and free from contaminates 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^2 per litre to surfaces which will have Emer-Proof HDPE 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 HDPE on the same day.

Emer-Proof® HDPE

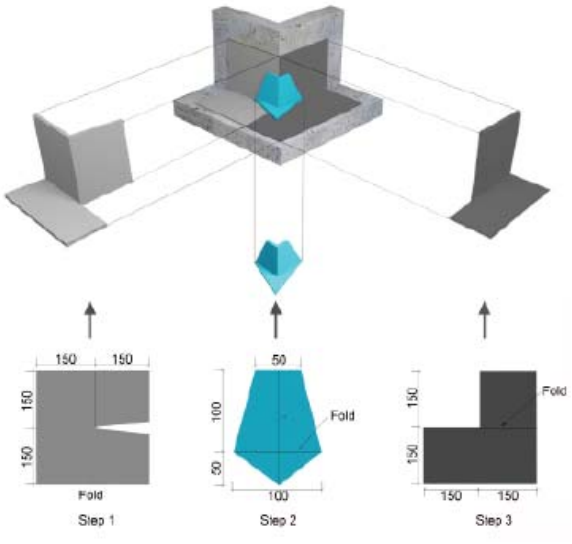
Application

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

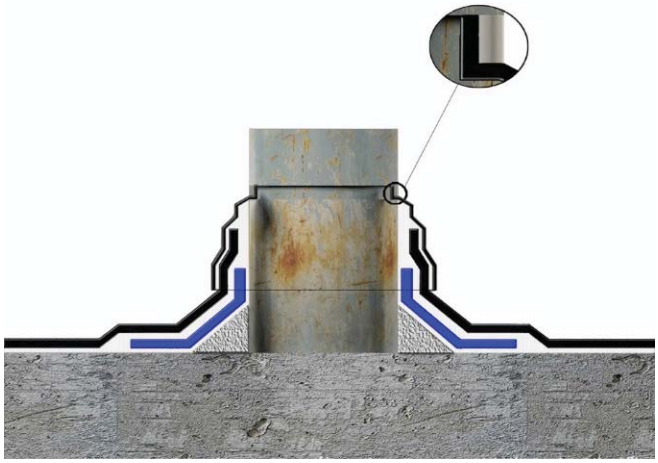
Longitudinal overlaps should be 50 - 60 mm and transverse laps 70 - 80 mm. Unroll and cut membrane to the required length.

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 HDPE 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.

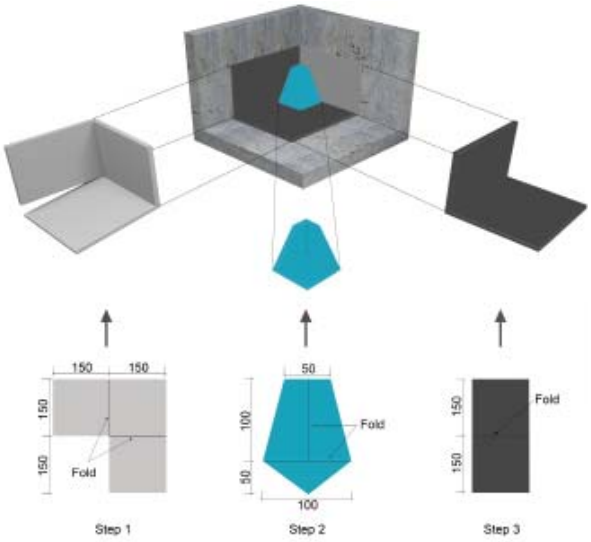
When finishing the membrane into perimeter flashings or around penetrations, use Nitoseal MB175 (formerly Plastiseal), a bituminous rubber mastic to assist in achieving a waterproof seal.



External Corner Detail



Pipe penetration



Internal Corner Detail

Protection

Emer-Proof HDPE 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.

When the membrane is to be backfilled such as with basement applications, Emer-Proof HDPE 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 HDPE 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 HDPE should not be applied to substrates subject to hydrostatic pressure from below the membrane.

Emer-Proof® HDPE

Supply

Emer-Proof HDPE:	1 metre wide, 20 metre long roll
Material code:	FC000537-UNIT
Emer-Proof Self Adhesive Primer:	20 litre pail
Material code:	FC042041-20L

Coverage

Emer-Proof HDPE:	approx. 18.9 m² / 20 m roll allowing for overlaps
Emer-Proof Self Adhesive Primer:	6 - 8 m² / litre

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.

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