

Substructure Waterproofing - Membranes

Preprufe® 800PA

Self-adhesive Preprufe membrane for basement walls in open excavations.

Description

Preprufe® 800PA is a cold-applied, self-adhesive waterproofing membrane, composed of a reinforced cross-laminated HDPE film, and a synthetic non-bituminous adhesive. Preprufe 800PA incorporates the Preprufe Advanced Bond Technology™.

Principal Applications

New and remedial waterproofing for:

- Basement walls of all basement grades to BS 8102: 2009
- Below-ground car parks
- Underground RC reservoirs and tanks
- Industrial plants
- Radon and methane gas protection
- Protection from water, damp and gas of critical substructures.

Installation

Preprufe 800PA can be applied to cementitious and metal substrates.

Available in two versions: Preprufe 800PA application temperature between +5°C and +40°C, Preprufe 800PA LT application temperature between -5°C and +20°C. The substrate should be clean, free of grease, release agents and protrusions or voids. Irregularities greater than 3 mm should be removed or filled with Grace Betec® NSM range of products.

All surfaces should be primed with one coat of Grace's water based primer - Bituthene Primer W2, which is suitable for use on damp surfaces. Alternatively, if time is critical, Grace's solvent based primer - Preprufe® SC1 - may be used to allow priming and installation of membrane on damp surfaces or "green" concrete.

The primer should be applied by roller or brush, a minimum of one hour before the application of the membrane. Primed surfaces should be covered with the membrane the same day.

Advantages

- Non-bituminous - synthetic self adhesive membrane based on Preprufe technology.
- Adhesion - excellent concrete adhesion at all temperatures.
- Productivity - 1.2 metre wide roll for increased worker efficiency.
- Fully bonded - eliminates water migration to prevent water tracking between membrane and substrate.
- Elastomeric - accommodates movements and bridges concrete shrinkage cracks.
- Superior performance - high strength, elongation, tear resistant properties.
- Water and vapour barrier - provides protection for all basements which need to be leak free.
- Gas resistance - methane and radon gas protection.

Before starting the application, cut Preprufe 800PA to appropriate lengths, according to the height of the application area. Peel back the first 30 cm of the release liner. Position the membrane and apply the adhesive face from top to the bottom removing completely the release liner. Preprufe 800PA should be brushed or rolled onto the primed surface to ensure good initial bond and to exclude trapped air. Adjacent rolls are aligned using printed lines overlapped 50 mm minimum at side and ends and well rolled with a firm pressure, using a lap roller to ensure complete adhesion and continuity between the layers.

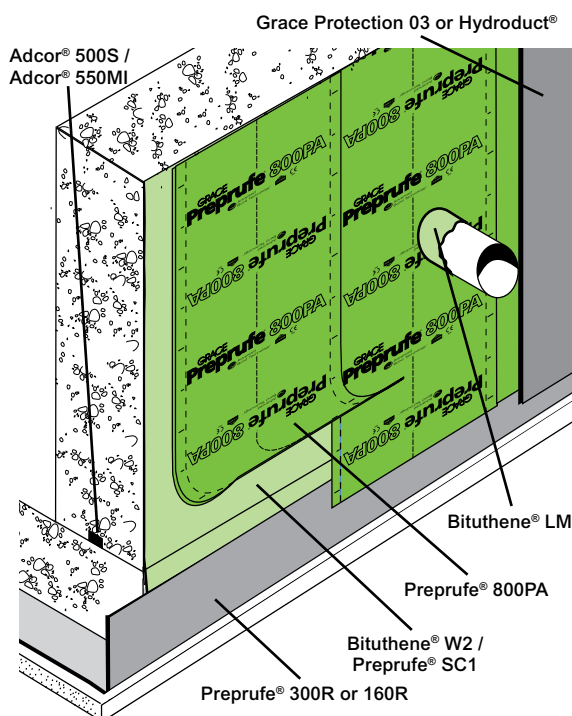
On high walls it may be necessary to batten fix the membrane to prevent slippage. Remove the batten after backfilling and before the positioning of any flashing (if needed). For other substrates such as plastic or wood consult Grace Construction Products.

Details

Internal and external corners and edges must be reinforced with pre-cut strips of 300 mm wide Preprufe 800PA. To seal penetrations such as service pipes, lightning conductors, etc., use Bituthene® LM applying it around the penetration with a fillet to provide a watertight seal with Preprufe 800PA membrane.

Repairs, Protection & Drainage

- Preprufe 800PA film has an internal grey/black layer. When damage occurs, the grey/black layer is exposed on the white surface. Damaged areas to be repaired with an oversize patch applied to a clean, dry surface extending 100 mm beyond damage and firmly rolled.



Details shown are typical illustrations only and not working drawings. For assistance with working drawings and additional technical advice please contact Grace Technical Services

Supply

Preprufe® 800PA	1.2 m x 35 m roll
Weight	35 kg / roll
Minimum overlap	50 mm
Storage	Store upright in dry conditions below +30°C
Bituthene® Primer W2	5 litre can
Coverage	7 - 8 sq m per litre
Preprufe® SC1	20 litre can
Coverage	10 - 12 sq m per litre depending upon method of application, surface porosity and ambient temperature.
Ancillary Products	
Bituthene® LM	5.7 litre packs
Grace® Protection 03	3mm x 0.9m x 2.03m (± 6%)
Adcor® 500S	6 x 5 m rolls
Hydroduct®	See separate Drainage Sheets data sheet

Equipment by others: Lap Roller

Physical Properties

	Typical Value	Test Method
Peel Strength at 23°C, min	3.2 N/mm	ASTM D 903 Modified3
Methane Permeability	74.2 ml/m ² /day	ISO 7229
Radon Diffusion Coefficient	5.6 x 10 ⁻¹² m ² /s	CTU K124/02/95


- The membrane should be protected from damage with 2 mm thick Grace Protection 03 board or Grace Protection roll prior to backfilling.
- Preprufe 800PA must not be exposed for more than 30 days.
- If the area around the substructure can be drained to a low level outlet then Grace recommends the Hydroduct range of drainage membranes.

Specification Clause

Refer to clause J40 297.

Health and Safety

There is no legal requirement for a Material Safety Data Sheet for Preprufe 800 PA. For health and safety questions please contact Grace Construction Products Limited. For Bituthene W2, Preprufe SC1 primer and Bituthene LM read the product label and Material Safety Data Sheet (MSDS) before use. Users must comply with all risk and safety phrases. MSDS can be obtained from Grace Construction Products Limited.

	Grace Construction Products Ltd Ipswich Road, Slough, Berkshire SL1 4EQ United Kingdom 10 06/F017
	EN 13967 Preprufe® 800PA Flexible Sheets for Waterproofing, Type T Reaction to fire: E, Watertightness: Pass at 60 kPa

Declared values according to EN 13967

Property	Declared Value	Test Method	Property	Declared Value	Test Method
Visible defects - MDV	No	EN 1850-2	Straightness - MDV	Pass	EN 1848-2
Length (m) - MDV	35	EN 1848-2	Thickness (mm) - MDV	0.8	EN 1848-2
Width Overall (roll) (m) - MDV	1.2	EN 1848-2	Mass per unit area (g/m ²) - MDV	735	EN 1848-2
Water tightness to liquid water (at 60kPa)	Pass	EN 1928	Durability of water tightness against ageing/degradation (at 60kPa)	Pass	EN 12691 EN 1928
Resistance to impact (AI-board) (mm) - MLV	150 - Pass	EN 12691	Durability of water tightness against chemicals (at 60kPa)	Pass	EN 12691 EN 1928
Resistance to impact (base EPS) (mm) - MLV	2000 - Pass	EN 12691	Compatibility with bitumen	Pass	EN 1548
Resistance to tearing (Nail Shank) - unreinforced sheets (N) - MLV	Long ¹ 155 Trans ² 180	EN 12310-1	Resistance to static loading	Pass	EN 12730
Joint strength (N/50mm) - MLV	300	EN 12317-1	Tensile properties - unreinforced sheets (N/6mm)- MLV	Long ¹ 50 Trans ² 55	EN 12311-2 Method B
Water vapour transmission (μ= sD/d) - MDV	465.000 - 485.000	EN 1931 Method B	Tensile properties - unreinforced sheets (Elongation %) - MLV	Long ¹ 130 Trans ² 100	EN 12311-2 Method B
Reaction to fire (Class; test conditions)	E	EN 13501-1			

Footnotes: 1. Longitudinal - related to the roll direction 2. Transversal - related to the roll direction
3. MDV: Manufacturer Declared Value 4. MLV: Manufactured Limiting Value

All declared values shown in this data sheet are based on test results determined under laboratory conditions and with the product sample taken directly from stock in its original packing without any alteration or modification of its component parts.

www.graceconstruction.com

Grace Construction Products Limited Ipswich Road Slough Berkshire SL1 4EQ United Kingdom
Tel +44 (0)1753 490000 Fax +44 (0)1753 490001

Adcor, Betec, Bituthene, Hydroduct and Preprufe are registered trademarks of W R Grace & Co.-Conn.

The information given is based on data and knowledge considered by GRACE to be true and accurate and is offered for the user's consideration, investigation and verification only. Since the conditions of use are beyond our control we do not warrant the results to be obtained. None of these statements, recommendations or suggestions shall constitute a warranty, guarantee, representation or statement of similar legal nature. No statement, recommendation or suggestion is intended for any use which would violate or infringe statutory obligations or any rights belonging to a third party. This data sheet should be checked against the latest version available from the local GRACE Representative or the GRACE website. The information contained in the latest data sheet supersedes all previously published editions. Visits to site by GRACE personnel do not constitute supervisory responsibility.

These products may be covered by patents or patents pending. Copyright 2011. Grace Construction Products Ltd PP800PA/UK/003b 09/11

GRACE