

UNITHENE 1600

High performance sheet waterproofing membrane

Description

Unithene 1600 is a self adhering cold applied bituminous vapour and waterproofing sheet membrane constructed from a cross orientated high density polyethylene sheeting and a polymer modified bitumen adhesive compound.

Standards Compliance: ASTM D1000, E154, E96. B.S. 8102:1990.

Applications

- Tanking of basements.
- Cut and cover tunnels.
- Foundations and retaining walls.
- General waterproofing applications.

Advantages

- Self adhesive makes installation quick, simple and reliable.
- Cross orientated HDPE carrier provides dimensional stability.
- Factory controlled thickness.
- Selvege strip to promote immediate lap sealing and membrane continuity.
- Self healing to minor damage.

Application Instructions

Preparation of Substrate:

All monolithic concrete surfaces should be smooth, free of voids, hollows, honeycombings, depressions, spalled areas, loose or coarse aggregate and sharp protrusions. Damaged surfaces are to be made good. Concrete curing compounds should be tested for compatibility or removed. Concrete should be at least 28 days old prior to application, all surfaces should be dry, free of frost, oil, grease, dust, debris and loose stone. Forms below horizontal slabs should be removed as early as possible to avoid entrapment of excessive moisture.

Priming

Apply Unithene Primer to all concrete and masonry surfaces, ensure that all areas are completely covered. Allow primer to dry until tack free. Only the area that can be covered by membrane in one working day should be primed. Areas left exposed for over 24 hours must be reprimed.

Fixing Membrane:

Remove the quick release paper by peeling back, not more than 300mm at a time and unroll the Unithene membrane keeping the adhesive face down on the primed surface. Press down the membrane working from the centre to the edges, to expel all trapped air while ensuring that contact with the surface is complete.

Overlaps and Seams:

Unithene membranes are produced with a selvedge to facilitate the ease in forming lap joints, while ensuring continuity of the membrane. Place the next roll alongside the first, overlapping the selvedge, align properly (unroll to full length if necessary and reroll without changing the given orientation). Peel back the release paper strip to expose the selvedge, not more than 1000mm at a time, peel back the release paper on the second roll, not more than 300mm at a time. Press down firmly (use a roller if possible) to expel all trapped air and to ensure complete contact and continuity between the membranes. End laps should be formed by overlapping by a minimum of 150mm.

Slope, Joints and Corner Details

A proper slope to drains should be provided for slabs, with drainage at membrane level. Unithene should be applied in such a manner so that laps shed water. All slab and wall designs should include expansion, control and construction joints, sealed in accordance with standard practice. Fillets of sand cement mortar are recommended at all junctions of floors and internal wall angles.

Expansion joints may be covered, with provision made to prevent strain and to accommodate movement, by using Uniflex.

Cover internal angles and vertical corners with a 300mm wide strip of Unithene followed by the full width of membrane. Where possible, external corners should be provided with a chamfer.

Sealing Edges and Seams

On vertical applications, Unithene should be applied over the edge of the parapet wall, edge of the slab or top of the foundation. A groove, riglet or chase should be used to terminate the membrane on the vertical surface. A counter flashing may also be used or the membrane could be terminated by pressing very firmly to the wall. Extra pressure may be necessary to ensure a proper seal. A compatible mastic bead may be used for all terminations. The membrane can be fitted generally in conformity with B.S. 8102:1990.

Protection of Membrane and Backfilling

Unithene should be protected to avoid damage by other trades, or backfill. The use of Unithene Protection Board is recommended, please refer to technical data. Protective material may not be necessary when backfilling with clean fine sand, however care should be taken to ensure that the membrane is not damaged by tools, earth moving equipment, etc.

Screeds, toppings and tiles should be laid as soon as possible, preferably the same day the membrane is applied.

Under no circumstances should the membrane be left exposed for longer periods.

Technical Data

Property	Test Method	Typical Value
Membrane thickness	-----	1.6mm
Width	-----	1050mm
Length	-----	19.05 metres
Membrane strength	ASTM D1000	5.0 N/mm
Elongation	ASTM D1000	300%
Puncture Resistance	ASTM E154	230 N
Adhesion (180° Peel)	ASTM D1000	4.0 N/mm
Water Vapour Transmission	ASTM E96	0.30 g/sq.m/24h
Water Penetration % Joint	Moat 27 5.1.4	Nil
Dimensional Stability	Moat 27 5.1.6 (80°C)	
Longitudinal		-0.1%
Lateral		-0.2%
Application Temp		5°C to 35°C

Packaging

Unithene 1600 is supplied in boxes 260mm x 260mm x 1100mm.

Handling and Storage

All care should be taken in storing Unithene. Rolls should be stored vertically and must never be stacked. Unithene must always be stored in dry, shaded and covered storage areas.

Technical Support

Through our technical department and laboratories we can offer a comprehensive service to specifiers and contractors.

Technical representatives are available throughout the UK to provide further information and arrange demonstrations.



Kingston House, 3 Walton Road, Pattinson North, Washington, Tyne & Wear, NE38 8QA, United Kingdom.
TEL: +44 (0) 191 416 8360 FAX: +44 (0) 191 415 5966 W: www.nufins.com E: info@usluk.com

The information and/or specifications contained herein or in our literature or given by Nufins, its employees, distributors, agents or representatives with regard to its product or their use or application are given in good faith, but no liability is accepted for any loss or damage (including direct or consequential loss or loss of profits) from the use of products because Nufins has no control over how its products are used and applied.