

Visqueen Gas Barrier



- **Low permeability to methane, radon and carbon dioxide.**
- **High quality multi-layer reinforced LDPE membrane with aluminium core with high levels of tear and impact resistance.**
- **High resistance to puncture.**
- **Complies with relevant codes of practice such as BRE and CIRIA.**
- **Also acts as a damp proof membrane.**

Description

The Building Regulations require that proper precautions be taken to prevent danger to health and safety when building on contaminated land. Visqueen Gas Barrier offers a safe solution for the protection of buildings against methane, radon, stythe (a gas commonly found from disused mines, also known as blackdamp), and carbon dioxide, when installed in accordance with the relevant codes of practice such as BRE, CIRIA and the Chartered Institute of Environmental Health Ground Gas Handbook. Visqueen Gas Barrier is a multi-layer reinforced polyethylene membrane with an integral aluminium foil. For ease of identification on site Visqueen Gas Barrier is coloured blue on one side and silver on the reverse. The barrier combines strength and performance with flexibility and easy installation. Visqueen Gas Barrier also acts as a damp proof membrane.

Multi-Layer Protection

Visqueen Gas Barrier utilises an advanced multi-layer lamination process to create an impenetrable and lasting protection whilst retaining flexibility for easy installation. A 0.4mm membrane comprising of five precision co-extruded film layers, it is made from high quality virgin LDPE laminating films, as thickness tolerance is critical for the heat bonding process. The Visqueen Gas Barrier provides a one piece barrier for safety, security, flexibility and durability.

Application

Visqueen Gas Barrier offers a safe solution for the protection of buildings and occupiers against methane, carbon dioxide and radon ingress. Typically these are sites previously used as coalfields, landfill or are contaminated industrial sites.

Visqueen Gas Barrier

Installation Guidelines

Visqueen Gas Barrier and ancillary components must be installed in accordance with the recommendations of Building Research Establishment BRE 414 "Protective measures for housing on gas contaminated land" and CIRIA C665 "Assessing risks posed by hazardous ground gases to buildings", NHB C guidelines, and the Chartered Institute of Environmental Health Ground Gas Handbook. The product is not intended for use where there is a risk of hydrostatic pressure. The membrane should be installed blue side up. The membrane should be installed on a compacted sand blinding layer or smooth concrete float finish. In areas where high levels of unsupported membrane occur it is recommended that Visqueen Pre Applied Membrane is used. To avoid slip or shear planes and high compressive loadings it is not recommended to take the membrane through the wall. In order to provide a continuous barrier across the cavity Visqueen Gas Resistant DPC should be taken through the blockwork and incorporated below the damp proof course cavity tray in the outer leaf.

Laps can be joined together by either using the Visqueen Gas Barrier jointing system or welded by our specialist on-site contractors.

Jointing and Sealing

Visqueen Gas Barrier should be overlapped by at least 150mm and bonded with Visqueen Double Sided Tape. The joint should be secured with Visqueen Foil Backed Girth Jointing Tape. Ensure that the membrane is clean and dry at the time of jointing

Airtight seals should be formed around all service entry points. Visqueen Pre-formed Top Hat Units must be used for sealing service entry pipes. The base of the top hat should be sealed using Visqueen Double Sided Tape and Visqueen Foil Backed Girth Jointing Tape is used to secured the joint

Punctures

If the membrane is punctured or perforated, then a patch of material with identical thickness should be lapped at least 150mm beyond the limits of the puncture and bonded with Visqueen Double Sided Jointing Tape and seal with Visqueen Foil Backed Jointing Tape. Alternatively a patch can be formed using Visqueen Detailing Strip and lapped at least 150mm beyond the limits of the puncture. External and Internal corners should be round and reinforced with Visqueen Detailing Strip. Where this is not possible and the 3 dimensional shapes are complex it is recommended a pre-formed unit is used.

NB. In demanding site conditions use Visqueen GR Lap Tape as a high performance alternative to Visqueen Foil Jointing Tape.

Ventilation

When medium to high levels of ground gases are present or when the generation of gases still occurs, then an open void beneath the ground floor should be constructed, as ventilation beneath the ground floor will dilute and disperse the gases to atmosphere. Open voids are normally restricted to beam and block floors or other precast concrete floor systems, an alternative for providing ventilation to in situ concrete floor slabs is to install a Visqueen Ventilation System.

Covering

Visqueen Gas Barrier should be covered by a protective layer as soon as possible after installation. Care should be taken to ensure that the membrane is not punctured, stretched or displaced when applying a screed or final floor covering. A minimum thickness of 50mm screed is recommended. When reinforced concrete is to be laid over the barrier the wire reinforcements and spacers must be prevented from contacting the barrier.

It is recommended that the barrier is covered with Visqueen Protection Boards or screed before positioning the reinforcement. When underfloor heating is being installed, it is recommended that the barrier is positioned between the blinded hardcore and insulation. This will protect the insulation from moisture and avoid any risk of overheating the membrane.

SPECIFICATION SUPPORT

The following items are available to view online or to download from www.visqueenbuilding.co.uk

- . Technical Datasheets
- . Typical installation CAD details
- . Health and Safety data

Register online for access to NBS Clauses and for information about our CPD Seminars



TECHNICAL SUPPORT

For advice on detailing or installation call Visqueen Building Products Technical Help Line 0845 302 4758. Pricing & Availability may be obtained from our UK Network of merchant stockists. For details of these call our Sales Office on 0845 302 4758.

VISQUEEN

BUILDING PRODUCTS

Heanor Gate, Heanor, Derbyshire DE75 7RG

T: 0845 302 4758 F: 0845 017 8663

enquiries@visqueenbuilding.co.uk

www.visqueenbuilding.co.uk

VISQUEEN BUILDING PRODUCTS IS A TRADING NAME OF BRITISH POLYTHENE LIMITED, COMPANY NUMBER: 350729, REGISTERED OFFICE: ONE LONDON WALL, LONDON, EC2Y 5AB

Visqueen Gas Barrier

Storage and Handling

Visqueen Gas Barrier is classified as non-hazardous when used in accordance with the relevant Code of Practice (CP 1021973). The product is chemically inert and is not affected by acids and alkalis that may be present in the sub-soils. The material is not recommended for uses where it will be exposed to long periods of outdoor weathering as exposure to ultraviolet light will embrittle the product. Weathering will not occur when the membrane is installed in accordance with CP102 1973. Care should be taken to avoid accidental damage when handling the membrane on site. When the weather is cold, Visqueen Double Sided Jointing Tape and Visqueen Foil Backed Girth Jointing Tape should be kept in a warm, dry place until needed. Installation is not recommended below 5°C.

TYPICAL PROPERTIES

Technical Information

Widths available (m)	1.6	2
Roll Length (m)	30/ 60	25/50
Water Vapour Permeability BS 3177 (g/m ² /day)	0.03	0.03
Tensile Strength BS 2782:Part 3:320A (N/mm ²)	43.7	43.7
Nominal Weight (g/m ²)	350	350
Overall Thickness (mm)	0.4	0.4
Methane Permeability (mls/m ² /day)	0.001	0.001
Tear Strength BS 2782: 360B (N/mm)	216	216

The information given in this datasheet is based on data and knowledge correct at the time of printing. Statements made are of a general nature and are not intended to apply to any use or application outside any referred to in the datasheet. As conditions of usage and installation are beyond our control we do not warrant performance obtained but strongly recommend that our installation guidelines and the relevant British Standard Codes of Practice are adhered to. Please contact us if you are in any doubt as to the suitability of application.

SPECIFICATION SUPPORT

The following items are available to view online or to download from www.visqueenbuilding.co.uk

- . Technical Datasheets
- . Typical installation CAD details
- . Health and Safety data

Register online for access to NBS Clauses and for information about our CPD Seminars



TECHNICAL SUPPORT

For advice on detailing or installation call Visqueen Building Products Technical Help Line 0845 302 4758. Pricing & Availability may be obtained from our UK Network of merchant stockists. For details of these call our Sales Office on 0845 302 4758.

VISQUEEN

BUILDING PRODUCTS

Heanor Gate, Heanor, Derbyshire DE75 7RG

T: 0845 302 4758 F: 0845 017 8663

enquiries@visqueenbuilding.co.uk

www.visqueenbuilding.co.uk

VISQUEEN BUILDING PRODUCTS IS A TRADING NAME OF BRITISH POLYTHENE LIMITED, COMPANY NUMBER: 350729, REGISTERED OFFICE: ONE LONDON WALL, LONDON, EC2Y 5AB