

Visqueen Low Permeability Gas Membrane

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- Low permeability to carbon dioxide radon and low levels of methane.
- High quality, robust Co-Polymer Thermoplastic Membrane.
- Supplied in centre folded sheeting which reduces the risk of cracks in screed.
- Complies with relevant codes of practice such as current BRE and CIRIA documentation.
- 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 Low Permeability Gas Membrane offers a safe solution for the protection of buildings against methane, radon, stythe (a gas commonly found from disused mines, also known as blackdamp), 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 Low Permeability Gas Membrane is a robust co-polymer thermoplastic membrane; for ease of identification on site the membrane is coloured yellow. The membrane is supplied in 4m x 12.5m roll and has a centre fold. It is flexible and is easy to install, and is also suitable for use as a damp proof membrane.

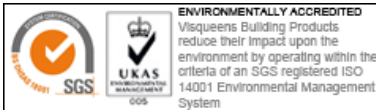
The membrane is manufactured as a centre folded product to **limit creases which aids jointing and welding applications** on site. Centre Folded films can also help to **reduce cracks** found in structural concrete screeds where traditional multi-folded DPMS are used.

Application

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



QUALITY ASSURANCE
 Visqueens products are manufactured under a Quality Management System approved to ISO 9001:2000 by SGS



ENVIRONMENTALLY ACCREDITED
 Visqueens Building Products reduce their impact upon the environment by operating within the criteria of an SGS registered ISO 14001 Environmental Management System



HEALTH & SAFETY MANAGEMENT
 Visqueens Building Films reduce their impact to human health by operating within the criteria of an SGS registered BS OHSAS Occupational Health and Safety Management System

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Installation

Visqueen Low Permeability Gas Membrane 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 the risk of hydrostatic pressure.

The membrane should be installed on a compacted sand blinding layer or smooth concrete float finish allowing adequate overlap for jointing between the sheets and avoiding bridging (i.e. areas of unsupported membrane). 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 Zedex CPT 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 Low Permeability Gas Membrane should be overlapped by at least 150mm and bonded with Visqueen Double Sided Tape. The joint should then 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 should be used to secure the joint.

Ventilation

BS8485 recommends ventilation layers on open voids may be required beneath the floor slab in order to dilute and disperse ground gases to the 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.

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

Covering

Visqueen Low Permeability Gas Membrane 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 membrane, the wire reinforcements and spacers must be prevented from contacting the membrane. It is recommended that the membrane is covered with Visqueen Protection Boards or screed before positioning the reinforcement. When underfloor heating is being installed, it is recommended that the membrane is positioned between the blinded hardcore and insulation. This will protect the insulation from moisture and avoid any risk of overheating the membrane.

Storage and Handling

Visqueen Low Permeability Gas Membrane is classified as nonhazardous when used in accordance with the relevant Code of Practice (CP 102:1973). The product is chemically inert and is not affected by acids and alkalis that may be present in the subsoils. 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 CP 102:1973. Care should be taken to avoid accidental damage when handling the membrane on site. When the weather is cold all jointing tapes should be kept in a warm and dry place until needed. Installation is not recommended below 5°C

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.



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TYPICAL PROPERTIES

Technical Data

Angle Tear Strength (BS 2782-3: Method 360C)	MD:112N/mm CD:108N/mm
Tensile Strength (BS EN ISO 572-3)	MD: 26.9N/mm ² CD: 26.8N/mm ²
Elongation (BS EN ISO 572-3)	MD: 780% CD: 825%
Carbon Dioxide Gas Permeability (ISO 2782)	2.80 x 10 ⁻¹⁷ m/sec/Pa
Methane Gas Permeability (ISO 2782)	1.13 x 10 ⁻¹⁷ m/sec/Pa
Thickness	500 microns (2000 gauge)
Roll Dimensions	4m x 12.5m
Roll Colour	Yellow
Roll Weight	23kg

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.

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