Low Permeability Gas Membrane
CE Mark to EN 13967

- **Low permeability to radon, carbon dioxide and low levels of methane.**
- **Approved for use in NHBC Amber 1 and Amber 2 applications.**
- **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.**

QUALITY ASSURANCE
Visqueen's products are manufactured under a Quality Management System approved to ISO 9001:2000 by Knight International.

ENVIRONMENTALLY ACCREDITED
Our sites are approved by Knight International Quality Assurance to the Environmental Management System standard ISO 14001:2004.

HEALTH & SAFETY MANAGEMENT
Visqueen's building films reduce their impact to human health by operating within the criteria of Knight International registered BS OHSAS Occupational Health and Safety Management System.

BBA APPROVAL INSPECTION TESTING CERTIFICATION
CERTIFICATE 13/5069

CE

EN 13967
Type A

13

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 approved for use in NHBC Amber 1 and Amber 2 applications. Ffor ease of identification on site the membrane is coloured yellow. The membrane is supplied in 4m x 12.5m roll. 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 radon, carbon dioxide and low levels of methane gas in NHBC Amber 1 and Amber 2 applications. Typically these are sites previously used as coalfields, landfill or are contaminated industrial sites.

System components
Visqueen Double Sided Jointing Tape

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

STRUCTURAL WATERPROOFING AND GAS PROTECTION SYSTEMS

Visqueen Gas Resistant (GR) Foil Tape
Visqueen Top Hat Units
Visqueen TreadGUARD1500
Visqueen Detailing Strip

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

Low Permeability Gas Membrane
CE Mark to EN 13967

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”, NHBC 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 Gas Resistant (GR) Foil 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 GR Foil Jointing
Tape should be used to secure the joint.
NB. In demanding site conditions use Visqueen Gas Lap Tape as a high performance alternative to Visqueen GR Foil Jointing Tape.

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.

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 TreadGUARD1500 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
The membrane should be stored under cover in a dry environment. 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.

VISQUEEN BUILDING PRODUCTS

Low Permeability Gas Membrane

CE Mark to EN 13967

Technical Data and CE Mark

Visqueen Low Permeability Gas Membrane complies with the requirements and clauses of EN 13967 - Flexible sheets for waterproofing - Plastic and rubber damp proof sheets including plastic rubber basement tanking sheet - Definitions and characteristics.

British Board of Agrement performed the initial inspection of the manufacturing plant and of factory production control and the continuous surveillance, assessment and evaluation of factory production control, and issued the certificate of constancy of conformity of the factory production control. 0836–CPD – 13/F029 applies.

CE

EN 13967
Type A

13

Product Data

Characteristic	Test method	Units	Compliance criteria	Value or Statement
Visible defects	EN 1850 -2	-	Pass/Fail	Pass
Length	EN 1848-2	m	-0%/+10%	12.5
Width	EN 1848-2	m	-2.5%/+2.5%	4
Straightness	EN 1848-2	-	Pass/Fail	Pass
Thickness	EN 1849-2	mm	-12.5%/+12.5%	0.5
Mass	EN 1849-2	g/m^2	-12.5%/+12.5%	460
Tensile Strength - MD	EN EN12311	N/mm^2	>MLV	20
Tensile Strength - CD	EN EN12311	N/mm^2	>MLV	20
Tensile Elongation - MD	EN EN12311	%	>MLV	675
Tensile Elongation - CD	EN EN12311	%	>MLV	665
Joint Strength	EN12317-2	N	>MLV	298
Watertightness 2kPa	EN 1928	-	Pass/Fail	Pass
Resistance to impact	EN 12691	mm	>MLV	250
Durability (artificial ageing)	EN 1296 and EN 1928	-	Pass/Fail	Pass
Durability Chemical Resistance	EN 1847	-	Pass/Fail	Pass
Resistance to tearing (nail shank) CD	EN 12310-1	N	MDV	333
Resistance to tearing (nail shank) MD	EN 12310-1	N	MDV	335
Resistance to static loading	EN 12730	Kg	>MLV	Pass-20kgs
Water vapour transmission - resistance	EN 1931	MNs/g	MDV	2100
Water vapour transmission - permeability	EN 1931	$g/m^2/d$	MDV	0.08

Low Permeability Gas Membrane

CE Mark to EN 13967

Radon Permeability	SP Test Method	m^2/s	MDV	5.477x10-12
Radon Transmittance	SP Test Method	m/s	MDV	1.095x10-8
Carbon Dioxide Permeability	IS0 2782	m/s/Pa	MDV	2.8x10-17
Methane Permeability	IS0 2782	m/s/Pa	MDV	1.13x10-17