Low Permeability Gas Membrane
CE Mark to EN 13967:2017

Description
Visqueen Low Permeability Gas Membrane is a robust co-polymer thermoplastic membrane approved for use in NHBC Amber 1 and radon applications. For ease of identification on site the membrane is coloured yellow. The membrane is flexible, easy to install and supplied in a 4m x 12.5m roll.

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.

Applications
Visqueen Low Permeability Gas Membrane offers a safe solution for the protection of buildings and occupiers against, damp radon and on NHBC amber 1 site conditions. NHBC Technical Extra Document 20 contains further information on their traffic light application criteria and is available on this link.

BS8485:2015
Visqueen Low Permeability Gas Membrane does NOT meet the criteria of BS8485:2015 and should only be used on the above applications. To ensure correct specification Visqueen's new Gas Protection guide is an easy to use tool and contains a product selector - page 9 - and a gas membrane criteria check sheet on page 6. Please click here to download Visqueen's Ultimate Gas Protection Guide.

Also, the product is not intended for use where there is risk of hydrostatic pressure.

System components
- Visqueen Double Sided Jointing Tape
- Visqueen Gas Resistant (GR) Foil Tape
- Visqueen Top Hat Units
- Visqueen TreadGUARD1500
- Visqueen Detailing Strip

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”, NHBC guidelines and the Chartered Institute of Environmental Health Ground Gas Handbook.

The membrane should be installed on a smooth grouted surface allowing adequate overlap for jointing between the sheets. 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.

**Radon areas**
The membrane can be used as a robust solution under concrete slabs on a top of a smooth blinding layer.

**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.

**Storage and Handling**
The membrane should be stored under cover in a dry environment. The material is not recommended for applications 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

**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 initial inspection of the manufacturing plant and of factory production control and continuous surveillance, assessment and evaluation of factory production control, and issued certificate of constancy of conformity of factory production control. 0836–CPD – 13/F029 applies.
## Product Data

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Test method</th>
<th>Units</th>
<th>Compliance criteria</th>
<th>Value or Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visible defects</td>
<td>EN 1850-2</td>
<td>-</td>
<td>Pass/Fail</td>
<td>Pass</td>
</tr>
<tr>
<td>Length</td>
<td>EN 1848-2</td>
<td>m</td>
<td>-10%/+10%</td>
<td>12.5</td>
</tr>
<tr>
<td>Width</td>
<td>EN 1848-2</td>
<td>m</td>
<td>-2.5%/+2.5%</td>
<td>4</td>
</tr>
<tr>
<td>Straightness</td>
<td>EN 1848-2</td>
<td>-</td>
<td>Pass/Fail</td>
<td>Pass</td>
</tr>
<tr>
<td>Thickness</td>
<td>EN 1849-2</td>
<td>mm</td>
<td>-12%/+12%</td>
<td>0.5</td>
</tr>
<tr>
<td>Grammage</td>
<td>EN 1849-2</td>
<td>-</td>
<td>-12%/+12%</td>
<td>460</td>
</tr>
<tr>
<td>Tensile Strength - MD</td>
<td>EN EN12311</td>
<td></td>
<td>&gt;MLV</td>
<td>15</td>
</tr>
<tr>
<td>Tensile Strength - TD</td>
<td>EN EN12311</td>
<td></td>
<td>&gt;MLV</td>
<td>15</td>
</tr>
<tr>
<td>Tensile Elongation - MD</td>
<td>EN EN12311</td>
<td>%</td>
<td>&gt;MLV</td>
<td>400</td>
</tr>
<tr>
<td>Tensile Elongation - TD</td>
<td>EN EN12311</td>
<td>%</td>
<td>&gt;MLV</td>
<td>400</td>
</tr>
<tr>
<td>Joint Strength</td>
<td>EN12317-2</td>
<td>N</td>
<td>MDV</td>
<td>298</td>
</tr>
<tr>
<td>Watertightness 2kPa</td>
<td>EN 1928</td>
<td>-</td>
<td>Pass/Fail</td>
<td>Pass</td>
</tr>
<tr>
<td>Resistance to impact</td>
<td>EN 12691</td>
<td>mm</td>
<td>&gt;MLV</td>
<td>200</td>
</tr>
<tr>
<td>Durability (artificial ageing)</td>
<td>EN 1296 and EN 1928</td>
<td>-</td>
<td>Pass/Fail</td>
<td>Pass</td>
</tr>
<tr>
<td>Durability Chemical Resistance</td>
<td>EN 1847</td>
<td>-</td>
<td>Pass/Fail</td>
<td>Pass</td>
</tr>
<tr>
<td>Resistance to tearing (nail shank) CD</td>
<td>EN 12310-1</td>
<td>N</td>
<td>MDV</td>
<td>333</td>
</tr>
<tr>
<td>Resistance to tearing (nail shank) MD</td>
<td>EN 12310-1</td>
<td>N</td>
<td>MDV</td>
<td>335</td>
</tr>
<tr>
<td>Resistance to static loading</td>
<td>EN 12730</td>
<td>Kg</td>
<td>&gt;MLV</td>
<td>Pass-20kgs</td>
</tr>
<tr>
<td>Water vapour transmission - resistance</td>
<td>EN 1931</td>
<td>MNS/g</td>
<td>MDV</td>
<td>2100</td>
</tr>
<tr>
<td>Water vapour transmission - permeability</td>
<td>EN 1931</td>
<td></td>
<td>MDV</td>
<td>0.08</td>
</tr>
<tr>
<td>Radon Permeability</td>
<td>SP Test Method</td>
<td>MDV</td>
<td>5.477x10-12</td>
<td></td>
</tr>
<tr>
<td>Radon Transmittance</td>
<td>SP Test Method</td>
<td>m/s</td>
<td>MDV</td>
<td>5.477x10-12</td>
</tr>
<tr>
<td>Carbon Dioxide Permeability</td>
<td>ISO 2782</td>
<td>m/s/Pa</td>
<td>MDV</td>
<td>2.8x10-17</td>
</tr>
<tr>
<td>Methane Permeability</td>
<td>ISO 2782</td>
<td>m/s/Pa</td>
<td>MDV</td>
<td>1.13x10-17</td>
</tr>
<tr>
<td>Reaction to Fire</td>
<td>EN 13501-1</td>
<td>Class</td>
<td>MDV</td>
<td>F</td>
</tr>
</tbody>
</table>
Low Permeability Gas Membrane
CE Mark to EN 13967:2017

About Visqueen
Visqueen is the market leader in the manufacture and supply of structural waterproofing and gas protection systems. Visqueen offers the complete package – a proven, reliable range backed by a technical support service that goes unmatched in the market - everything you would expect from a reputable and ethical company.

Complete Range, Complete Solution
- Structural Waterproofing
- Damp Proof Course
- Damp Proof Membranes
- Gas Protection and Gas Venting
- Vapour Control Layers
- Stormwater Protection

Download Library
- Technical Datasheet
- Standard Details
- Technical Service
- Visqueen Gas Protection Brochure
- NBS Clauses
- BBA Certificates
- Material Safety Datasheets
- Specification Guide

Find your local stockist
Search our directory of Visqueen specification Specialist Centres to locate your nearest Visqueen Partner.

Technical support throughout your project
We are specialists in our field and can help you specify the correct solutions with the necessary performance levels, in accordance with building regulations.
- Nationwide site support team
- Specification advice
- Installation guidance & project sign off
- System design including CAD details

CPD Seminars and Training Academy
Gas Protection CPD
The specification, technical design, and installation of gas protection systems, enabling the sustainable regeneration of brownfield sites.

Structural Waterproofing CPD
The specification, technical design, and installation of structural waterproofing systems for protection against water and damp ingress in both above and below ground projects.

Visqueen Training Academy
We are now able to offer exclusive in depth training opportunities on a wide variety of Visqueen products at our Training Academy.

Visqueen Special Projects
We provide high-level expertise, comprehensive support and experience in all types of waterproofing and gas protection.

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.