

Visqueen Pre Applied Membrane

CE Mark to EN 13967

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- | **Heavy duty, high performance membrane.**
- | **Joints can be tape bonded or welded.**
- | **Suitable for both damp proofing and tanking applications.**
- | **Barrier to hazardous ground gases.**
- | **Barrier to hydrocarbon contamination.**
- | **Specified for major projects throughout the UK.**

Description

Visqueen Pre Applied Membrane is an advanced high performance, flexible HDPE geomembrane. The membrane has a textured face on one side designed to aid adhesion to cast concrete. The membrane is 1.5mm thick and supplied in roll form 2.95m x 25m.

Application

Building Regulations require that the ground floors of a building should adequately protect the building, and people who use the building, from the harmful effects caused by ground moisture. The instances of traditional damp proof membranes being damaged by following trades or the process of positioning spacers and reinforcement prior to laying a reinforced concrete slab, has resulted in the need for a robust membrane system that greatly reduces the risks of future damp ingress due to mechanical damage during the construction phase.

On many developments, ground gas and hydrocarbon contamination pose a very serious risk of causing explosion, asphyxiation or harm. Current industry guidance recommend that gas membranes are specified on the basis of the need to survive construction; durability, survivability and robustness being critical membrane properties.

Visqueen Pre Applied Membrane is designed to provide a robust solution to preventing the ingress of damp, ground gas or hydrocarbon contamination. Unlike the smooth surfaced traditional damp proof membranes, the textured surface of Visqueen Pre Applied Membrane aids adhesion to cast concrete. The membrane can withstand normal on-site foot traffic and the activities associated with the laying of a reinforced concrete slab without the need for additional membrane protection. In addition, when applied with welded joints the membrane can provide protection against hydrostatic water pressure.

Visqueen Pre Applied Membrane can be used in a variety of applications including:

- Gas contaminated land.
- Hydrocarbon contaminated brownfield sites.
- Heavy duty reinforced concrete slabs.



EN 13967
 Type A and T

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VISQUEEN BUILDING PRODUCTS IS A TRADING NAME
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 350729, REGISTERED OFFICE: ONE LONDON WALL,
 LONDON, EC2Y 5AB

STRUCTURAL WATERPROOFING
 AND GAS PROTECTION SYSTEMS

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- Slab edges and permanent shutter work.
- Tanking below ground structures e.g. lift pits.

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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Installation

Visqueen Pre Applied Membrane and system components should be installed in accordance with the recommendations of the relevant codes of practice and industry guidance, such as CP102:1973, BS8102:2009, BRE414:2001, CIRIA C665:2007, BR211:2007 and BS8485:2007.

A suitable drainage system should be designed and incorporated in accordance with the requirements of BS8102:2009.

To avoid linear expansion due to temperature change the membrane should not be taken through any masonry wall. The relevant Visqueen damp proof or gas proof course should be taken through and extended beyond the wall by a minimum of 250mm where it can be jointed to the membrane.

When installed horizontally, the membrane should be applied to a smooth continuous surface of preferably float finished concrete blinding or alternatively sand blinding. The surface should be free from loose aggregates or other sharp protrusions. Any standing water should be removed to prevent potential lap joint contamination. The membrane should be laid with the textured surface facing away from the blinding.

When installed vertically, Visqueen Pre Applied Membrane should be pre applied to permanent formwork or the adjoining structure. Visqueen Retaining Discs are available to provide a means for securing the leading edge of the membrane to shuttering. The membrane should be installed with the textured surface facing away from the shuttering.

Using oval nails, Visqueen Retaining Discs should be mechanically fixed, at maximum 400mm centres, to the internal face of the shuttering. Using a suitable power tool and 6mm drill bit to create a pilot hole in the membrane, the Visqueen Pre Applied Membrane should be secured over the protruding section of the retaining disc. The top edge of the membrane should be trimmed to approximately 20mm below the top edge of the slab.

Once the concrete has set, the oval nails should be removed by pulling through from the external face of the shuttering. When the shuttering is removed the Visqueen Retaining Discs should be visible on the external (smooth) face of the membrane. Continuity of the membrane system with the damp or gas proof course is maintained using Visqueen GR Self Adhesive Membrane (see Visqueen Typical Details).

Lap joints

Visqueen Pre Applied Membrane has been designed to exhibit superior welding properties using hot edge, hot air, or extrusion welding. Therefore onsite welding of membrane lap joints is recommended for all applications and must be employed when hydrostatic water pressure or hydrocarbon contamination is present. Where required, Visqueen's network of preferred installers can install the membrane and offer the client a fully warranted system.

Alternatively, when Visqueen Pre Applied Membrane is used for damp proofing, ground gas protection and sites where hydrostatic water pressure or hydrocarbon contamination is of low risk, lap joints can be bonded with Visqueen Double Sided Jointing Tape and then sealed with Visqueen GR Single Sided Lap Tape.

When using tapes to secure laps, the overlap should be minimum 150mm and the membrane surfaces to be jointed should be dry and free from contamination such as dust or sand. Once the tapes are applied, the lap should be well rolled with firm pressure to ensure complete adhesion and continuity.

Service penetrations, corners and junctions

All service pipe penetrations should be fully sealed using welded membrane or Visqueen Preformed Top Hat Units. The base and collar of the preformed unit should be bonded using Visqueen Double Sided Jointing Tape and sealed with Visqueen GR Single Sided Lap Tape. The collar should be secured with a

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mechanical fastening.

To ensure system integrity, all internal and external corners should be provided with either welded corners or Visqueen Preformed Units bonded to the membrane using Visqueen Double Sided Jointing Tape and sealed with Visqueen GR Single Sided Lap Tape. Complex or awkward junctions should be sealed using either welded membrane or Visqueen Detailing Strip.

Precautions

Visqueen Pre Applied Membrane is classified as non-hazardous when used in accordance with the relevant codes of practice and industry guidance. When the weather is cold, Visqueen jointing tapes and self adhesive materials should be kept in a warm, dry place until needed. Unless welded, membrane installation is not recommended below 5°C.

To avoid high linear expansion when installed in hot weather, the membrane should be covered immediately after installation with concrete or screed.

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Technical Data and CE Mark

Visqueen Pre-Applied 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.

Notified certification body SKZ – TeConA GmbH (identification no. 1213) performed the initial inspection of the manufacturing plant and of factory production control (FPC) and the continuous surveillance, assessment and evaluation of FPC and issued the certificate of conformity of the FPC no. 5773.



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Product Data				
Characteristic	Test method	Units	Compliance criteria	Value or Statement
Length	EN 1848-2	m	-0%/+10%	25
Width	EN 1848-2	m	-0%/+10%	2.95
Thickness	EN 1849-2	mm	-10%/+10%	1.5
Mass	EN 1849-2	g/m ²	-10%/+10%	1440
Tensile Strength - MD	EN EN12311	N/mm ²	>MLV	27
Tensile Strength - CD	EN EN12311	N/mm ²	>MLV	29
Tensile Elongation - MD	EN EN12311	%	>MLV	820
Tensile Elongation - CD	EN EN12311	%	>MLV	900
Joint Strength	EN12317-2	N	>MLV	446
Watertightness 60kPa	EN 1928	-	Pass/Fail	Pass
Resistance to impact	EN 12691	mm	>MLV	1500
Low temperature flexibility	EN 1109	oC	-15	Pass
Durability against heat ageing	EN 1296	-	Pass/Fail	Pass
Durability Chemical Resistance	EN 1847	-	Pass/Fail	Pass
Resistance to tearing (nail shank) CD	EN 12310-1	N	MDV	346
Resistance to tearing (nail shank) MD	EN 12310-1	N	MDV	353
Resistance to static loading	EN 12730	Kg	>MLV	Pass at 20
Water vapour transmission - resistance	EN 1931	MNs/g	MDV	2883
Water vapour transmission - permeability	EN 1931	g/m ² /d	MDV	0.07
Methane permeability		cc/m ² /hr	MDV	1.95
Petrol Permeability	ISO 6179	g/m ² /hr	MDV	1.3
Diesel Permeability	ISO 6179	g/m ² /hr	MDV	0.1
Toluene Permeability	ISO 6179	g/m ² /hr	MDV	1.8

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Xylene Permeability	ISO 6179	g/m ² /hr	MDV	1.7
Reaction to Fire	EN 13501-1	Class	MDV	F

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.