Technical Datasheet

Visqueen High Performance Vapour Barrier

Features & benefits

- Used within floor, wall and roof constructions
- UKCA UKNI CE to EN 13984:2013 - achieves Building Regulation and warranty provider requirements
- Suitable for all BS 5250:2021 humidity classes - prevents damage to structure and insulation
- Single wound roll

Product description

Visqueen High Performance Vapour Barrier is a multi-layer reinforced polyethylene barrier with a 20 micron aluminium foil. The barrier is coloured blue on the upper surface and silver on the reverse. The product is supplied in single wound rolls (not folded), 2m x 50m long.

Approvals and standards

- Air leakage tested to BS EN 1026:2016
- UKCA UKNI CE to EN 13984:2013
- Visqueen certified with Quality Management System ISO 9001:2015
- Visqueen certified with Occupational Health and Safety System ISO 45001:2018
- Visqueen certified with Environmental Management System ISO 14001:2015

Usage

Visqueen High Performance Vapour Barrier is an air and vapour control layer (AVCL) and is used in high condensation risk buildings to reduce the risk of interstitial condensation occurring within the structure as well as improving the airtightness of the building.

The barrier restricts the passage of warm, moist air from within the building from permeating into the floor, wall or roof structure.

The barrier is designed to be installed to the warm side of floors, walls and roofs. It is suitable for all BS 5250:2021 humidity classes including those with high internal humidities e.g. laundries and swimming pools.

System components

- VisqueenPro Vapour Edge Tape, 150mm x 15m
- Visqueen FR Double Sided Vapour Tape, 20mm x 50m
- Visqueen FR Single Sided Vapour Tape, 50mm x 50m

Storage and handling

Visqueen High Performance Vapour Barrier should be stored horizontally, under cover in its original packaging.

Care should be taken when handling the product in line with current manual handling regulations.

Preparation

When bonding Visqueen High Performance Vapour Barrier to the substrate, e.g. timber or metal stubs, the surface should be smooth, clean, dry and free from dust or sharp protrusions.

The barrier can be cut with a sharp retractable safety knife or robust scissors.

Installation

Visqueen High Performance Vapour Barrier should be installed in accordance with the recommendations of BS 5250:2021 Management of moisture in buildings - code of practice. The barrier should be installed on the warm side of the insulated structure, with care being taken to ensure that all laps, penetrations and abutments are sealed. The membrane should be continuous in order to ensure optimum vapour control performance.

Where the barrier is to be fixed to timber or metal studs, apply sufficient strips of Visqueen FR Double Sided Vapour Tape to the vertical and horizontal studs, head and sole plates, etc to ensure that the barrier remains in position until the plasterboard or construction board is mechanically fixed in position over the barrier. Progressively peel off the tape release film and apply the barrier ensuring adhesion at the tape locations .e.g. by rollering with a seam roller.

The barrier should be installed with the foil (silver) side facing the warm inside of the building.

All joints in the barrier should be lapped by a minimum of 75mm and sealed with Visqueen FR Single Sided Vapour Tape applied centrally over the lap. To aid formation laps should be made over a solid substrate.

Ensure barrier continuity at the junction of horizontal and vertical substrates. Seal abutments with VisqueenPro Vapour Edge Tape applied centrally over the junction. Failure to suitably connect the barrier to other building elements will severely reduce vapour control performance.

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Ensure the barrier is not damaged in service due to residual heat from light fittings. The barrier should not be subjected to gravity forces (unsupported) such as on the underside of roof decks or the underside of floor structures, and should be suitably mechanically secured to ensure that it remains in position during service.

Visqueen air and vapour control layers (AVCLs) do require permanent mechanical fixing, normally achieved by over-boarding the AVCL with a plasterboard or other construction board.

Usable temperature range

It is recommended that Visqueen High Performance Vapour Barrier and all associated system components should not be installed below 0°C.

Additional information

Care should be taken to prevent the AVCL from becoming punctured, stretched or displaced when installing plasterboard or other construction board over the installed AVCL.

The information in this datasheet was correct at the time of publication. It is the user's responsibility to obtain the latest version of the datasheet as it is updated on a regular basis. The information contained in the latest datasheet supersedes all previously published editions.

Property	Test method	Units	Compliance criteria	Result
Visible defects	BS EN 1850 -2	-	Pass/Fail	Pass
Length	BS EN 1848-2	m	-0%/+10%	50
Width	BS EN 1848-2	m	-0%/+10%	2
Thickness	BS EN 1849-2	mm	-12.5%/+12.5%	0.52
Mass	BS EN 1849-2	g/m²	-12.5%/+12.5%	345
Tensile strength - MD	BS EN 12311	N	MLV	515
Tensile strength - CD	BS EN 12311	N	MLV	550
Tensile elongation - MD	BS EN 12311	%	MLV	17
Tensile elongation - CD	BS EN 12311	%	MLV	15
Joint strength	BS EN 12317-2	N	MLV	332
Watertightness to 2kPa for 24 hours	BS EN 1928	-	Pass/Fail	Pass
Resistance to impact	BS EN 12691	mm	>MLV	200
Low temperature flexibility	BS EN 495-5	°C	-40	Pass
Durability (artificial ageing)	BS EN 1296 and BS EN 1928	-	Pass/Fail	Pass
Durability chemical resistance	BS EN 1847	-	Pass/Fail	Pass
Resistance to tearing (nail shank) CD	BS EN 12310-1	N	MDV	358
Resistance to tearing (nail shank) MD	BS EN 12310-1	N	MDV	368
Water vapour resistance factor	BS EN 1931	μ	MDV	120,000,000
Water vapour resistance	BS EN 1931	MNs/g	MDV	240,000
Water vapour permeability	BS EN 1931	g/m² /day	MDV	0.0008658
Reaction to fire	BS EN 13501-1	Class	MDV	F
Equivalent air layer thickness	BS EN 1931	m	MDV	47,700
Air leakage	BS EN 1026:2016	m³/h/m² @ ±100 Pa	<5	0

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Health and safety information

Refer to the Visqueen High Performance Vapour Barrier safety datasheet (SDS).

About Visqueen

Visqueen is a leading provider of construction membrane technologies and design-based solutions for ground gas, structural waterproofing, damp proofing and fire protection.

We offer complete support at every stage of the specification, including the supply chain process. As the UK's principal technical authority, we are best placed to ensure that the principal designer and contractor specify the most technically suited, durable, and competitive solution to guarantee their project is protected for the lifetime of the building.

Visqueen is at the forefront of advanced membrane technology and innovation in the construction industry, earning the trust and loyalty of specifiers throughout the UK and Europe.

For more information, visit visqueen.com or contact our sales office at +44 (0) 333 202 6800 or enquiries@visqueen.com

Complete Range, Complete Solution

Passive Fire Protection | Gas Protection | Damp Proof Membrane | Air and Vapor Control | Stormwater | Damp Proof Course | Temporary Protection

Visqueen Technical Support

Visqueen offer a comprehensive full nationwide technical support. Our team of CSSW qualified technical support managers provide on site design-based solutions for specifiers, contractors and builders merchants, and will ensure that from design stage to installation the project is fully risk assessed and the specification is approved by all stakeholders.

Our Technical Office, can design, prepare and manage CAD detailing, together with assisting in quantity take offs, while offering advice on technical installations and product selection.

Competency & Design

Visqueen promotes competency in building design by ensuring that its technical team possesses the necessary skills, knowledge, experience, and ethical practices. The company adopts the "golden thread of information," ensuring all project data is digitally secure and accessible throughout a building's lifecycle. This approach aligns with the Building Safety Act and aims to foster accountability and compliance with evolving regulations, providing clients with confidence in the safety and reliability of their projects.

Visqueen CPD Seminars

Visqueen's CPD Seminars offer insights into Building Regulations, Standards, and industry guidance related to damp proofing, hazardous ground gas protection, and structural waterproofing. These one-hour seminars are tailored for construction design professionals and delivered by our Technical Support Managers. Visit our website to book a free CPD.

Visqueen Contract Design Services

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Visqueen Contract Design Services offers a bespoke design service led by our team of Certified Surveyors in Structural Waterproofing (CSSW), providing experienced and specialised waterproofing design expertise for complex projects. We provide comprehensive support throughout the entire project, ensuring that all work meets the requirements of warranty providers and adheres to the highest standards of quality, reliability and current legislation.

Visqueen Training Academy

Based at our Derbyshire facility, the Visqueen Training Academy offers a variety of training programs across the UK. These include one-day product awareness sessions for distributors and builders' merchants, and intensive two-day courses for hands-on product installation training. Contact us for more information.

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