Technical Datasheet

Visqueen NF-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 NF-Vapour Barrier is a co-extruded, multi-layer thermoplastic barrier, 0.4mm thick (400 micron). The membrane is transparent with a blue tint and supplied 2.4m x 43.5m in a single wound roll.

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 NF-Vapour Barrier is an air and vapour control layer (AVCL) and is used in low, medium and 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.

Storage and handling

Visqueen NF-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 NF-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 NF-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 barrier should be continuous in order to ensure optimum performance.

Apply Visqueen FR Double Sided Vapour Tape to securely bond the barrier to structural components, including vertical studs, horizontal noggins, head plates, and sole plates. Progressively peel off the tape release film and apply the barrier ensuring adhesion e.g. with a seam roller. This tape contributes to maintaining the integrity of the air and vapour control layer by reducing the potential for air and vapour leakage following the mechanical installation of plasterboard or construction board over the barrier.

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 performance.

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) require permanent mechanical fixing, normally achieved by over-boarding the AVCL with a plasterboard or other construction board.

Usable temperature range

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It is recommended that Visqueen NF-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
Dimensions	BS EN 1848-2	m	-	2.4 x 43.5
Nominal thickness	BS EN 1849-2	mm	+/-10%	0.4
Mass	BS EN 1849-2	g/m²	>370	>370
Tensile strength - machine direction	BS EN 12311-2 method B	N/mm²	MDV	26.3
Tensile strength - cross direction	BS EN 12311-2 method B	N/mm²	MDV	29.4
Elongation at break - machine direction	BS EN 12311-2 method B	%	MDV	607
Elongation at break - cross direction	BS EN 12311-2 method B	%	MDV	921
Joint strength - taped joint	BS EN 12317-2	N/50mm	MDV	217
Joint strength - welded joint	BS EN 12317-2	N/50mm	MDV	405
Watertightness at 2kPa for 24 hours	BS EN 1928 method A	-	Pass/Fail	Pass
Watertightness at 2kPa for 24 hours after ageing	BS EN 1296 (12 weeks) + BS EN 1928 method A	-	Pass/Fail	Pass
Watertightness at 2kPa for 24 hours after alkali environment	BS EN 1847 (28 days) + BS EN 1928 method A	-	Pass/Fail	Pass
Resistance to impact	BS EN 12691 method A	mm	MLV	200
Low temperature flexibility	BS EN 495-5	°C	MDV	-20
Resistance to tearing (nail shank) - machine direction	BS EN 12310-1	N	MDV	265
Resistance to tearing (nail shank) - cross direction	BS EN 12310-1	N	MDV	240
Water vapour resistance	BS EN 1931 method B	MNs/g	MDV	2,296
Water vapour permeability	BS EN 1931 method B	g/m²/d	MDV	0.08
Water vapour resistance factor	BS EN 1931 method B	μ	MDV	1,140,000
Water vapour diffusion equivalent air layer thickness	BS EN 1931 method B	SD in m	MDV	459
Puncture CBR	BS EN 12236	N	MDV	1620
Tensile yield strength - machine direction	ASTM D4885-01	kN/m	MDV	8
Tensile yield strength - cross direction	ASTM D4885-02	kN/m	MDV	7.3
Resistance to static loading	BS EN 12730 method C	kg	MDV	15

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Elongation yield - machine direction	ASTM D4885-01	%	MDV	405.3
Elongation yield - cross direction	ASTM D4885-01	%	MDV	400.2
Tear resistance - trouser method A - machine direction	BS ISO 34-1	kN/m	MDV	128
Tear resistance - trouser method A - cross direction	BS ISO 34-1	kN/m	MDV	109.7
Tear resistance - angle method B - machine direction	BS ISO 34-1	N	MDV	137
Tear resistance - angle method B - cross direction	BS ISO 34-1	N	MDV	139.6
Air leakage	BS EN 1026:2016	$m^3/h/m^2$ @ ±100 Pa	<5	0

Health and safety information

Refer to the Visqueen NF-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

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to book a free CPD.

Visqueen Contract Design Services

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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