Technical Datasheet

Visqueen Urban Drainage Geomembrane

Features & benefits

- Used in stormwater attenuation systems
- Used as an impermeable membrane in permeable paving systems

Product description

Visqueen Urban Drainage Geomembrane is a polyethylene geomembrane, black in colour, 0.5mm thick and supplied in multi folded rolls 4m x 12.5m.

Approvals and standards

- Suitable for use as an impermeable membrane in a permeable paving systems to BS 7533-13:2009 (System C - no infiltration)
- 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 Urban Drainage Geomembrane is a flexible membrane suitable for wrapping of underground stormwater attenuation crates in light duty situations (maximum 2 units deep), and as an impermeable membrane placed on top of the subgrade formation level and to the sides of the sub-base within a permeable paving system.

System components

- VisqueenPro Detailing Strip, 300mm x 10m
- Visqueen Top Hat Units
- Visqueen TreadGUARD 300, 2m x 75m
- Visqueen Medium Duty Protection Board
- Visqueen 100mm Double Sided Butyl Tape, 100mm x 15m
- Visqueen NF-Detailing Strip, 300mm x 10m

Storage and handling

Visqueen Urban Drainage Geomembrane 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

Visqueen Urban Drainage Geomembrane can be cut with a sharp retractable safety knife or robust scissors.

For small scale works, Visqueen Medium Duty Protection Board is available as an alternative to Visqueen Treadguard 300 protection layer.

Installation

Visqueen Urban Drainage Geomembrane should be clean and dry at the time of jointing. It should be overlapped by at least 150mm and the lap bonded with Visqueen 100mm Double Sided Butyl Tape. In demanding site conditions also seal lap joints with Visqueen GR Lap Tape. All lap joints should be pressed and rollered to ensure a completely sealed joint is achieved.

Alternatively lap joints can be heat welded to achieve an effective seal. Welded lap joints can be less than 150mm provided the joint integrity is not compromised.

Visqueen Preformed Top Hat Units should be used for sealing pipe penetrations. The base of the top hat and the upstand should be bonded using Visqueen 100mm Double Sided Butyl Tape. The upstand should be secured with the supplied jubilee clip. Alternatively Visqueen Pro Detailing Strip or Visqueen NF-Detailing Strip can be used to seal pipe penetrations.

If the geomembrane is punctured or perforated a patch of the same material should be lapped at least 150mm beyond the limits of the puncture and bonded with Visqueen 100mm Double Sided Butyl Tape. Alternatively a patch can be formed using Visqueen Pro Detailing Strip or Visqueen NF-Detailing Strip lapped at least 150mm beyond the extents of the puncture.

When used as a liner for stormwater attenuation crates, ensure that the base of the trench is level and free from voids or protrusions. Blind the substrate with minimum 100mm sand blinding, level and compact. When installing the geomembrane, it should be protected on both faces with Visqueen TreadGuard 300 protection layer. Visqueen UDG Corner Units (unit dimension 150mm x 150mm x 150mm) should be positioned at the external corners of the crate system.

When used in a System C permeable paving application, the geomembrane should be laid on a smooth continuous

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Visqueen Urban Drainage Geomembrane

blinded subgrade free from irregularities such as voids or protrusions, or alternatively the blinding can be replaced with a layer of Visqueen TreadGuard 300 protection. The upper face of the geomembrane should be protected with Visqueen TreadGuard 300 protection layer prior to laying the sub-base coarse graded aggregate.

Usable temperature range

It is recommended that Visqueen Urban Drainage Geomembrane and all associated system components should not be installed below 5°C.

Additional information

For additional detailing information, contact Visqueen Technical Services +44 (0) 333 202 6800.

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
Colour				Black
Length	BS EN 1848-2	m	-100	12.5
Width	BS EN 1848-2	m	-1	4
Puncture	ASTM D4883	N	MDV	135
Impact resistance	BS EN 12691	mm	MLV	200
Jointed membrane watertightness to 60kPa for 24 hours	BS EN 1928	-	Pass/Fail	Pass
Jointed membrane watertightness to 250kPa	MOAT 27 5.1.4		Pass/Fail	Pass
Tensiles strength MD	BS EN 12311	N/mm2	MLV	15
Tensiles strength CD	BS EN 12311	N/mm2	MLV	15
Elongation @ break MD	BS EN 12311	%	MLV	400
Elongation @ break CD	BS EN 12311	%	MLV	400
Thickness	BS EN 1849-2	mm	+/- 12%	0.5

Health and safety information

Refer to the Visqueen Urban Drainage Geomembrane 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



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Visqueen Urban Drainage Geomembrane

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

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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