

Visqueen Urban Drainage Geomembrane

Features and benefits

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

Product description

Visqueen Urban Drainage Geomembrane is a 100% recycled 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

- Visqueen 100mm Double Sided Butyl Tape, 100mm x 15m
- Visqueen GR Lap Tape, 150mm x 10m
- Visqueen Top Hat Units
- VisqueenPro Detailing Strip, 300mm x 10m, 500mm x 10m
- Visqueen Medium Duty Protection Board
- Visqueen TreadGUARD 300, 2m x 75m

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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 rolled 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 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 and 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 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 product is recyclable and categorised under LDPE recycling code 4.

Visqueen is part of Berry bpi, the largest European recycler of polyethylene. This product is recyclable and should be segregated on site in accordance with site management procedures for plastic waste. We have 4 recycling sites in the UK where the plastic waste could be recycled and converted back into a second life product. Please contact us to find out more.

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.

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Property	Test method	Units	Compliance criteria	Result
Colour				Black
Length	BS EN 1848-2	m	-10/+10%	12.5
Width	BS EN 1848-2	m	-2.5%/+2.5%	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/mm ²	MLV	15
Tensiles strength CD	BS EN 12311	N/mm ²	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).

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About Visqueen

The Visqueen name has long been recognised as one of the leading manufacturers of high quality advanced membrane technologies and design based solutions by specifiers, distributors, builders merchants and contractors throughout the UK and Europe.

For further guidance on the Visqueen services shown below, please refer to the relevant section of the Visqueen website (www.visqueen.com) or contact Visqueen Technical Services on +44 (0) 333 202 6800 or enquiries@visqueen.com

Complete Range, Complete Solution



Structural Waterproofing



Gas Protection



Damp Proof Membrane



Tapes



Damp Proof Course



Stormwater



Vapour Control

Visqueen Technical Support

Visqueen combine an extensive product portfolio with industry leading levels of service and support which includes guidance over the phone, bespoke CAD drawings to help with complex detailing, electronic NBS specifications and access to a dedicated team of highly knowledgeable and experienced field based Technical Support Managers.

Visqueen Technical Support is available to all our customers including architects, specifiers, distributors, builders merchants, contractors and end users. All of our technical team have been awarded the industry recognised qualification Certificated Surveyor in Structural Waterproofing (CSSW).

Visqueen CPD Seminars

The Visqueen Continuing Professional Development (CPD) Seminars provide up-to-date information on changes within Building Regulations/Building Standards and nationally recognised industry guidance affecting damp proofing, water vapour control, hazardous ground gas protection and below ground structural waterproofing.

The one hour seminars have been produced for design specialists within the construction sector and are delivered by our team of Technical Support Managers.

Visqueen Training Academy

Based at our manufacturing facility in Derbyshire, the Visqueen Training Academy is available to support Visqueen customers throughout the UK by providing a wide range of both theory and practical skills related training.

Courses include one day product awareness training for our distributors and builders merchants to help them in their day-to-day jobs, through to intensive two day courses giving detailed hands-on training in the practical skills required for safe and robust product installation.