

Page 1

# High Performance UDG Urban Drainage Geomembrane System













- Suitable for various demanding geomembrane applications
- Conforms to Appendix C of CIRIA C697 & C753
- High resistance to puncture
- Excellent welding characteristics
- Extremely flexible in cold weather conditions

#### Description

Using the latest Zedex technology, Visqueen High Performance Urban Drainage Geomembrane is flexible, has high puncture resistance and suitable for non-smooth surfaces and factory prefabrication to optimise on site installation. The product is black in colour, 1mm thick and supplied in an easy to handle roll size of 1.4m x 50m. Visqueen High Performance Urban Drainage Geomembrane is a catagory 2 impermeable membrane under BS 7533 part 13.

#### **Application**

Visqueen High Performance UDG is a robust weldable geomembrane suitable for attenuation tank encapsulations, porous sub-base installations, containment and cut-off trenches.

Visqueen High Performance UDG is a chemically inert membrane offering designers and specifiers a range of critical properties that meet the needs of today's demanding geomembrane applications including high water table sites.

#### **Additional System Components**

- Visqueen UDG Double Sided Jointing Tape (100mm x 15m roll) for bonding the membrane at overlaps
- Visqueen GR Single Sided Lap Tape (150mm x 10m roll) for securing the laps of the membrane
- Visqueen Preformed Top Hat Unit preformed pipe sleeve unit for sealing around pipe penetrations
- Visqueen TreadGUARD1500 HDPE board for protecting the membrane from damage after installation
- Visqueen TreadGUARD300 woven PP fleece for protecting the membrane from damage after installation

### Installation

Visqueen High Performance UDG exhibits superior welding properties, making it ideal for on-site welding of joints. In certain applications the sealing of laps can be achieved using the Visqueen UDG Jointing Tape System. In these instances Visqueen UDG Double Sided Jointing Tape is applied approximately 50mm from the edge of the membrane. The next width of Visqueen High Performance UDG should then be overlapped. For effective jointing all laps should be a minimum of 150mm. The lap should be secured with Visqueen GR Single Sided Lap Tape. When ambient temperatures drop below 10°C, the components of the Visqueen Jointing Tape System should be kept in a warm, dry place until needed. Membrane installation using this technique is not recommended below 5°C. Always ensure that the membrane lap area is clean, dry and free from dust or contamination at the time of jointing.

Visqueen High Performance UDG should be installed on a blinded or smooth surface, free from sharp protrusions. Avoid areas of unsupported membrane. Adequate protection, such as Visqueen TreadGUARD1500 or 300, should be applied over the membrane to prevent damageafter installation.

## Storage and Handling

Visqueen High Performance UDG is classified as non-hazardous. It















Page 2

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is chemically inert and is not affected by acids and alkalis that may be present in the subsoils. The material is not recommended for uses where it will be exposed to long periods of outdoor weathering, such as exposure to ultraviolet light that will embrittle the product. Care should be taken to avoid accidental damage when handling the membrane on site. When the weather is cold all jointing tapes should be kept in a warm and dry place until needed. Installation is not recommended below 5°C. The rolls weigh 65 kilos and care should be taken when handling.









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**Product Data** 

eading	Characteristic	Test method	Units	Compliance criteria	
	Colour				Grey
	Length	EN 1848-2	m	-0/+10%	50
	Width	EN 1848-2	m	-0/+10%	1.4
	Thickness	EN 1849-2	mm	+/-20%	1
	Mass	EN 1849-2		-12%/+12%	974
	Tensile Strength - MD	EN EN12311	N/mm2	>MLV	22
	Tensile Strength - CD	EN EN12311	N/mm2	>MLV	20
	Tensile Elongation - MD	EN EN12311	%	>MLV	799
	Tensile Elongation - CD	EN EN12311	%	>MLV	848
	Joint Strength	EN12317-2	N	>MLV	515
	Watertightness - 60kPa	EN 1928	-	Pass/Fail	Pass
	Resistance to impact	EN 12691	mm	>=MLV	600
	Resistance to static loading	EN 12730	kg	MLV	Pass-20
	Resistance to Nail tear - MD	EN 12310-1	N	>=MLV	705
	Resistance to Nail tear - CD	EN 12310-1	N	>=MLV	745
	Durability-Heat ageing	EN 1296	-	Pass/Fail	Pass
	Durability-Chemical resistance	EN 1847	-	Pass/Fail	Pass
	Resistance to Low temperature	EN 495-5		MDV	Pass at - 40oC
	Water vapour transmission - resistance	EN 1931	MNs/g	MDV	1171
	Water vapour permeability	EN 1932		MDV	0.11
	Reaction to Fire	EN 13501-1	Class	MDV	F
	Chemical Resistance - Acids	EN 14414-A	-	Pass/Fail	Pass
	Chemical Resistance - Alkalies	EN 14414-B	-	Pass/Fail	Pass
	Chemical Resistance - Organic Solvents	EN 14414-C	-	Pass/Fail	Pass
	Chemical Resistance - Visual Defects	EN 14414	-	Pass/Fail	Pass
	Resistance to Leaching - Hot Water	EN 14415-A	-	Pass/Fail	Pass
	Resistance to Leaching - Aqueous alkaline liquids	EN 14415-B	-	Pass/Fail	Pass
	Resistance to Leaching - Organic alcohols	EN 14415-C	-	Pass/Fail	Pass
	Resistance to Leaching - Visual Defects	EN 14415-A	-	Yes/No	No









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Appendix A

#### **About Visqueen**

Visqueen is the market leader in the manufacture and supply of structural waterproofing and gas protection systems. Visqueen offers the complete package – a proven, reliable range backed by a technical support service that goes unmatched in the market - everything you would expect from a reputable and ethical company.

#### Complete Range, Complete Solution

- Structural Waterproofing
- Damp Proof Course
- Damp Proof Membranes
- · Gas Protection and Gas Venting
- Vapour Control Layers
- Stormwater Protection

#### **Download Library**

- Technical Datasheet
- Standard Details
- Technical Service
- Visqueen Gas Protection Brochure
- NBS Clauses
- BBA Certificates
- Material Safety Datasheets
- Specification Guide

#### Find your local stockist

Search our directory of Visqueen specification Specialist Centres to locate your nearest Visqueen Partner.

## Technical support throughout your project

We are specialists in our field and can help you specify the correct solutions with the necessary performance levels, in accordance with building regulations.

- Nationwide site support team
- Specification advice
- Installation guidance & project sign off
- System design including CAD details

#### CPD Seminars and Training Academy



#### **Gas Protection CPD**

The specification, technical design, and installation of gas protection systems, enabling the sustainable regeneration of brownfield sites.



#### Structural Waterproofing CPD

The specification, technical design, and installation of structural waterproofing systems for protection against water and damp ingress in both above and below ground projects.



## Visqueen Training Academy

We are now able to offer exclusive in depth training opportunities on a wide variety of Visqueen products at our Training Academy.



#### **Visqueen Special Projects**

We provide high-level expertise, comprehensive support and experience in all types of waterproofing and gas protection.



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