

Visqueen Ultimate Gas Damp Proof Course

Features and benefits

- Complies with CIRIA C748:2014 - industry standard for volatile organic compounds (VOC) protection
- Complies with the methane gas transmission rate, mass per unit area and thickness requirements of BS 8485:2015 + A1:2019 - industry standard for methane and carbon dioxide protection
- Provides protection against radon, carbon dioxide, methane and VOCs
- Dual jointing methods - lap joints can be taped or heat welded
- Visqueen Ultimate Preformed Units available - simplifies complex or awkward detailing

Product description

Visqueen Ultimate Gas DPC utilises Visqueen's Advanced Barrier Technology. The DPC is a 0.5mm thick, flexible 7 layer co-extruded film providing volatile organic compound (VOC) and ground gas resistance.

The DPC has an embossed/debossed finish, is coloured gold/white and can be installed with either surface facing upwards.

It is supplied in 20m length rolls and the following widths as standard: 500mm, 600mm, 750mm and 900mm.

Approvals and standards

- Complies with CIRIA C748:2014
- Complies with the methane gas transmission rate, mass per unit area and thickness requirements of BS 8485:2015 + A1:2019
- Suitable for all Characteristic Gas Situation (CS) ground gas regimes
- Conforms to the specification requirements of NHBC Amber 1 and Amber 2 applications
- Conforms to the specification requirements of BR 211:2015
- Shear strength tested to BS EN 1052-4:2000 Methods of test for masonry - Part 4.
- Flexural mortar bond strength tested in accordance with DD 86-1:1983
- UKCA UKNI CE to EN 14909:2012 Type A
- 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

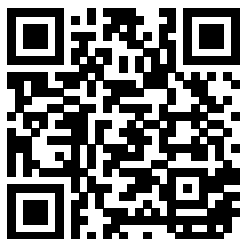
Visqueen Ultimate Gas Damp Proof Course is suitable for all masonry wall applications including residential, commercial and multi storey buildings. It can be site formed into a built-in or surface fixed cavity tray to manage the downward passage of water in cavity wall applications.

The DPC is used to prevent harmful volatile organic compounds (VOCs) and hazardous ground gases from entering into the cavity from the ground or entering the building via internal walls. The DPC is also suitable for use on NHBC Amber 1 and 2 sites or where radon gas exists. It can also be used on sleeper walls below a ground floor construction e.g. beam and block floor system.

System components

- Visqueen 100mm Double Sided Butyl Tape, 100mm x 15m
- Visqueen Zedex DPC Surface Fixing System
- Visqueen Preformed Units
- Visqueen DPC Joint Support
- Visqueen HP Tanking Primer, 5L

Find your local stockist



Visqueen Ultimate Gas Damp Proof Course

Storage and handling

Visqueen Ultimate Gas Damp Proof Course should be stored vertically, under cover in its original packaging.

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

Preparation

Visqueen Ultimate Gas Damp Proof Course can be cut with a sharp retractable safety knife or robust scissors.

Installation

DPCs and DPC cavity trays systems to be designed and installed in accordance with the relevant sections of BS 8215:1991, PD 6697:2019 and BS 8000-3:2020.

When built into a masonry wall construction the DPC should be installed on an even bed of wet mortar, and any perforations in adjacent courses of masonry should be completely filled with mortar. To ensure mortar adhesion, as soon as possible after laying the DPC, lay at least one further course of masonry including a bed of mortar. If positioned on the sleeper walls below a suspended ground floor e.g. beam and block floor system, the DPC can be dry laid, however all sharp protrusions must be removed from the substrate. The DPC must extend through the full thickness of the masonry wall, including pointing, applied rendering or other facing materials.

When used as a site formed cavity tray, the DPC can be either built-in to the inner leaf or surface fixed to the cavity face of the inner leaf.

When surface fixing the cavity tray, the substrate should be primed with Visqueen HP Tanking Primer and allowed to dry. The DPC should be bonded to the inner leaf using Visqueen 100mm Double Sided Butyl Tape and permanently secured using Visqueen Fixing Strip and fixing suitable for the substrate. Visqueen Fixing Pins for both rigid urethane foam insulation boards, and pins for masonry substrates are available.

To simplify complex or awkward junctions e.g. corners, changes of level, etc, an extensive range of Visqueen Ultimate Preformed Units are available.

All DPC to DPC laps and DPC to Visqueen Ultimate Preformed Unit laps should be a minimum of 100mm and bonded with Visqueen 100mm Double Sided Butyl Tape. Alternatively, the above laps can be heat welded.

Usable temperature range

It is recommended that Visqueen Ultimate Gas Damp Proof Course 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.

Visqueen Ultimate Gas Damp Proof Course

| Property | Test method | Units | Criteria | Result | |
|---|----------------------|--------------------------|----------|-----------------------|------|
| Colour | | | | Gold/white | |
| Weight | | g/m ² | | 490 | |
| Length | BS EN 1848-2 | m | -0/+10% | 20 | |
| Width | BS EN 1848-2 | mm | -0/+10% | 500, 600, 750 and 900 | |
| Thickness | BS EN 1849-2 | mm | +/-10% | 0.5 | |
| BS 8485:2015 and C748:2014 physical test results | | | | | |
| Puncture | BS EN ISO 12236:2006 | N | MDV | 1640 | |
| Impact resistance Method A hard surface | BS EN 12691 | mm | MDV | 200 | |
| Impact resistance Method B soft surface | BS EN 12691 | mm | MDV | 1250 | |
| Tensiles yield strength MD 1 | ASTM D4885-01 | kN/m | MDV | 5.1 | |
| Tensiles yield strength CD 1 | ASTM D4885-01 | kN/m | MDV | 4.91 | |
| Yield elongation MD 1 | ASTM D4885-01 | % | MDV | 76 | |
| Yield elongation CD 1 | ASTM D4885-01 | % | MDV | 62 | |
| Tear resistance - trouser method A - MD | BS ISO 34-1 | kN/m | MDV | 60.2 | |
| Tear resistance - trouser method A - CD | BS ISO 34-1 | kN/m | MDV | 66.1 | |
| Tear resistance - angle method B - MD | BS ISO 34-1 | N | MDV | 48.7 | |
| Tear resistance - angle method B - CD | BS ISO 34-1 | N | MDV | 49.6 | |
| 1 - at yield and not break as equipment used was not strong enough to break the DPC | | | | | |
| BS 8485:2015 - Methane testing | | | | | |
| Methane permeability unjointed | ISO 15105-1 | ml/m ² /d/atm | <40 | 1.3 | |
| Methane permeability welded joint | ISO 15105-1 | ml/m ² /d/atm | <40 | 24 | |
| Carbon dioxide | ISO 15105-1 | ml/m ² /d/atm | <40 | 8.3 | |
| C748:2014 - Permeation vapour tests - 100% concentration | | | | | |
| Benzene | ISO 15105-2 | MDV | 0.08 | 70 | 2.92 |
| Toluene | ISO 15105-2 | MDV | 0.09 | 78.5 | 3.27 |
| Ethyl benzene | ISO 15105-2 | MDV | 0.11 | 93.8 | 3.91 |
| m,p xylene | ISO 15105-2 | MDV | 0.01 | 6.7 | 0.28 |
| Hexane | ISO 15105-2 | MDV | gas | 2.6 | 0.11 |
| Vinyl chloride | ISO 15105-2 | MDV | 0 | 6.4 | 0.27 |
| Tetrachloroethene (PCE) | ISO 15105-2 | MDV | 0 | 3.2 | 0.13 |
| Trichloroethene (TCE) | ISO 15105-2 | MDV | solid | 0.3 | 0.01 |
| Naphthalene | ISO 15105-2 | MDV | 0.03 | 19.7 | 0.82 |
| UKCA, CE, UKNI Mark EN 14909:2012 | | | | | |
| Characteristic | | | | | |
| Tensile strength - MD | BS EN 12311 | N/mm ² | MDV | 32.8 | |
| Tensile strength - CD | BS EN 12311 | N/mm ² | MDV | 33.1 | |
| Tensile elongation - MD | BS EN 12311 | % | MDV | 699 | |
| Tensile elongation - CD | BS EN 12311 | % | MDV | 723 | |
| Joint strength | BS EN 12317-2 | N | MDV | 265 | |
| Watertightness 2kPa | BS EN 1928 | - | Pass/ | Pass | |

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| Property | Test method | Units | Criteria | Result |
|---|----------------|---------------------|---------------|--------------------------|
| | | | Fail | |
| Resistance to impact | BS EN 12691 | mm | >MLV | 200 |
| Durability watertightness after heat ageing | BS EN 1296 | - | Pass/ Fail | Pass |
| Durability watertightness against chemicals | BS EN 1847 | - | Pass/ Fail | Pass |
| Resistance to tearing (nail shank) CD | BS EN 12310-1 | N | MDV | 245 |
| Resistance to tearing (nail shank) MD | BS EN 12310-1 | N | MDV | 270 |
| Water vapour transmission - resistance | BS EN 1931 | MNs/g | MDV | 1034 |
| Water vapour transmission - permeability | BS EN 1931 | g/m ² /d | MDV | 0.13 |
| Radon permeability | Sp Method 3873 | m ² /s | MDV | <1.5 x 10 ⁻¹² |

Health and safety information

Refer to the Visqueen Ultimate Gas Damp Proof Course safety datasheet (SDS).

Visqueen Ultimate Gas Damp Proof Course

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 three day courses giving detailed hands-on training in the practical skills required for safe and robust product installation.