Visqueen Axiom UniSeal

Features and benefits
- BDA certified - third party accreditation
- Type A Barrier Membrane (Tanking Membrane) - resistant to ground water in accordance with BS 8102:2009
- Tough rubber like cure - perfect for detailing irregular profiles and penetrations
- Multiple applications - Ideal for waterproofing block work and brick masonry applications
- Unique curing properties - creates a fillet in just one pass, with no complicated build-ups
- Barrier properties - radon resistant

Product description
Visqueen Axiom UniSeal is a two part system, the first component a bitumen-extended polyurethane fluid with a secondary part an accelerator hardener. The liquid membrane is supplied in two parts: 15kg of the liquid membrane (Part A) with a 0.6kg accelerator (Part B) in a small tin. Both are supplied in the same tin - overall 15.6kg.

Approvals and standards
- Third party accreditation (BDA certificate BAB 18-077/02/A)
- Suitable for use as a Type A Barrier Membrane (Tanking Membrane) to BS 8102: 2009
- Conforms with the specification requirements of NHBC Chapter 5.4

Usage
Visqueen Axiom UniSeal is specially formulated for waterproofing below ground structures. It is suitable for complex shapes, irregular profiles and angle fillets. It can be used to seal pipe penetrations and steel stanchions and steel reinforcement. It can also be used on various surfaces including steel, timber, plywood, bitumen membranes and masonry. It is ideal for blockwork and masonry and can be applied in external applications. Visqueen Axiom UniSeal is a high performance liquid waterproofing membrane which meets the requirements of BS8102:2009 for Grades 1, 2 and 3, and is classified as a fully bonded Type A membrane. The product is applied directly to the masonry or blockwork.

A primer is not required.

System components
- Visqueen Protect&Drain
- Visqueen TreadGUARD 1500, 1m x 2m

Find your local stockist
Visqueen Axiom UniSeal

Storage and handling
Visqueen Axiom UniSeal should be stored upright, undercover and in its original packaging. Store away from any sources of ignition in a well ventilated space at temperatures between 5°C and 30°C.

To avoid the risk of spillage, always store and transport in a secure upright position. The unopened product has a minimum shelf life of 12 months. Once opened the product must be used within an hour.

Care should be taken when handling the product in line with current manual handling regulations. Use in a well ventilated space away from any sources of ignition. Keep the container closed when not in use.

Preparation
Visqueen Axiom UniSeal should be applied to substrates that are smooth, clean, dry and free from frost, dust, laitences or loose material. Any surface contamination e.g. oil, paint, mortar snots, fungal growth, etc must be removed. All substrate cracks or surface irregularities must be repaired and filled prior to product application.

The Mixing Ratio 1:1, mix with a variable speed mixer with paddle. Do not part mix.
1. Open Part A and take out Part B (small tin)
2. Break seal of Part B and replace lid so it is ready for use
3. Stir Part A for at least 30 secs – moving the paddle from bottom to top
4. Pour full contents of Part B (small tin) into A
5. Stir for further 4 mins increasing speed as Part B is worked in
6. Once mixed and stirred use within 45 minutes to 1 hour
Thoroughly mix by moving paddle up in clockwise and anti-clockwise directions. Scrape any liquids from the sides and restart stirring. Only apply when thoroughly mixed.

Installation
Tools required: Gauging trowel or steel plasterers trowel and plasterers hawk. Tools can only be cleaned by scraping off the excess material. Using the appropriate tools, apply onto the blockwork based using the same principle as plastering. We recommend areas that require fillets or complex detailing are completed by using a small gauging trowel, fillet and detailing work should be completed before the main area.

For external tanking on blockwork please refer to standard detail AX10 and AX11. The horizontal sheet membrane section should be laid on a concrete blinding to project at least 300mm beyond the outer face of the structure. The base structural slabs and the walls should be formed, and the vertical Axiom UniSeal should then be applied by trowel. The membrane should then be protected from backfilling using Visqueen Protect&Drain or Treadguard1500.

Coverage:
Angle fillet - In fillet applications the material should be at least 20mm thickness in the horizontal and vertical surfaces. For 20mm in both directions you will achieve c.78 liner metres per tin (15.6L)

Full coverage:
- Using a full tin as a render coat 2.5mm thick you will achieve 6.24m² of coverage.
- For sealing steel reinforcements a 2.5mm thickness with a 300mm coverage is recommended. See standard details AX01, AX02 and AX03.
- Once mixed UniSeal must be applied within one hour at normal ambient temperatures.
- Once opened and mixed the liquid cannot be resealed and used again and MUST be discarded appropriately. Touch dry should be achieved within 3 hours

Linear bead coverage:
- For sealing pipe penetrations or steel reinforcement – see details: AX-08
- For 10mm x 10mm bead you will achieve 156 linear metres per tin (15.6L)
- For the 150mm wide strip at 2.5mm thickness you will achieve 40 linear metres per tin (15.6kg)

Usable temperature range
Visqueen Axiom UniSeal can be used in temperatures above 5°C. The surface temperature should also be above 5°C.

Additional information
Once opened and mixed the liquid cannot be resealed and used again and must be discarded appropriately in accordance with the MSDS. The product must be used within an hour of opening. Use Visqueen Axiom UniSeal in well ventilated area.

Visqueen Axiom UniSeal

Technical Datasheet - Onsite Usage

Heanor Gate Road, Heanor, Derbyshire, DE75 7RG
+44 (0) 333 202 6800 | enquiries@visqueen.com | www.visqueen.com
**Visqueen Axiom UniSeal**

<table>
<thead>
<tr>
<th>Tin Size</th>
<th>Units</th>
<th>Part A</th>
<th>Part B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Axiom UniSeal large tin Part A</td>
<td>kg</td>
<td>15</td>
<td>0.6</td>
</tr>
<tr>
<td>Axiom UniSeal small tin Part B</td>
<td>kg</td>
<td>5</td>
<td>0.2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Application</th>
<th>Thickness</th>
<th>linear metres</th>
</tr>
</thead>
<tbody>
<tr>
<td>Angle fillet</td>
<td>20mm</td>
<td>78 and 26</td>
</tr>
<tr>
<td>Penetrations pipes/reinforcement</td>
<td>10mmx10mm</td>
<td>156 and 52</td>
</tr>
<tr>
<td>Penetrations overlap</td>
<td>150mmx2.5mm</td>
<td>40 and 13</td>
</tr>
<tr>
<td>Full coverage - render coat</td>
<td>2.5mm</td>
<td>6.24 and 2.08m2</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Property</th>
<th>Method</th>
<th>Unit</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average thickness</td>
<td></td>
<td>mm</td>
<td>2-6</td>
</tr>
<tr>
<td>Water vapour diffusion resistance factor</td>
<td>BS EN1931</td>
<td>u</td>
<td>9000</td>
</tr>
<tr>
<td>Water vapour diffusion resistance</td>
<td>BS EN1931</td>
<td>sD</td>
<td>22.5 -45</td>
</tr>
<tr>
<td>Water vapour diffusion resistance, calculated range</td>
<td>BS EN1931</td>
<td>MNs.g-1</td>
<td>112.5 - 225</td>
</tr>
<tr>
<td>Radon permeability (t= 20 mm layer thickness)</td>
<td>SP. Method 3873</td>
<td>m²/s</td>
<td>10⁻¹²</td>
</tr>
<tr>
<td>Tensile strength at break (23 °C)</td>
<td>BS EN ISO 5278</td>
<td>N/mm²</td>
<td>4</td>
</tr>
<tr>
<td>Elongation at break (23 °C)</td>
<td>BS EN ISO 5278</td>
<td>%</td>
<td>&gt;500</td>
</tr>
<tr>
<td>Tack free time (25 °C &amp; 55% RH)</td>
<td></td>
<td>h</td>
<td>0.5-1</td>
</tr>
<tr>
<td>Service temperature</td>
<td></td>
<td>oC</td>
<td>- 40 to 80</td>
</tr>
<tr>
<td>Hardness BS EN ISO 8689</td>
<td></td>
<td>Shore A</td>
<td>25</td>
</tr>
</tbody>
</table>

**Health and safety information**

Please refer to Visqueen Axiom UniSeal part A and B material safety datasheet (MSDS)
Visqueen Axiom UniSeal

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

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 PI designs and special projects

From initial design to the completed project, Visqueen are with you every step of the way. Whether it be hazardous ground gas protection and/or below ground waterproofing protection employing barrier, structurally integral or drained systems, Visqueen can offer professional indemnity (PI) insurance for bespoke Visqueen design solutions.

Visqueen Technical Support Managers work with all stakeholders to provide cost effective Visqueen solutions offering complete peace of mind throughout the construction phase and beyond.

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.