



AXIOM UNISEAL

Liquid Waterproofing

Features & Benefits

- Perfect for detailing irregular profiles and penetrations
- Creates a fillet in just one pass - NO Complicated build-ups
- Compliments Visqueen's self-adhesive waterproofing membranes
- Formulated for masonry applications including blockwork

Description

Visqueen Axiom UniSeal is a two part system: the first component a bitumen-extended polyurethane fluid with a secondary part an accelerator hardener. This unique system cures rapidly to give a continuous tough rubber-like, fully bonded waterproofing coating

The 2 part system is available in one 5.2 or 15.6 kilo clamped tin containing:

- Part A - 5 or 15 kilos of bitumen-extended polyurethane liquid
- Part B - 200 or 600 grams of the accelerator hardener

Application

The product is specially formulated for waterproofing below ground structures in the following applications:

- Fillet and reinforcement material at inside corners
- Detailing irregular profiles and pipe penetrations such as steel stanchions
- Waterproofing blockwork externally and internally
- Sealing steel reinforcements
- Sealing materials at terminations
- Radon protection

Visqueen Axiom UniSeal is used where a high performance tanking liquid waterproofing membrane is required in accordance with BS8102 – Grades 1, 2 and 3 apply. It is classified as a fully bonded Type A membrane.



System Components	<p>Visqueen Axiom UniSeal is ideally suited for use with Visqueen Self Adhesive waterproofing membranes:</p> <ul style="list-style-type: none">■ Visqueen Self Adhesive Membrane (SAM)– a tanking or damp proof membrane for both horizontal and vertical applications■ Visqueen Gas Resistant Self Adhesive Membrane (GR SAM) - a tanking or damp proof membrane for both horizontal and vertical applications where bulk gases exist.■ Visqueen Pre Applied Membrane■ Visqueen TorchON Tanking Membrane
Surface Preparation	<p>All surfaces should be smooth, clean, dry and free from frost, oil, grease, condensation and other contamination. UniSeal in fillet applications should be applied prior to the application of the self-adhesive membrane.</p> <p>Application temperature should be above 5oC although the product has been proved to work at 0oC.</p> <p>Gloves and suitable PPE should be worn prior to application.</p>
Mixing instructions	<p>Mixing – Ratio 1:1</p> <p>A variable speed mixer with paddle is required</p> <ol style="list-style-type: none">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 use3. Stir Part A for at least 30 secs – moving the paddle from bottom to top4. Pour full contents of part B into A5. Stir for further 4 mins increasing speed as part B is worked in6. Once mixed and stirred use within 1 hour <p>Thoroughly mix by moving paddle up in clockwise and anti-clockwise directions. Scrape any liquids from the sides and restart stirring.</p>
<p>Visqueen recommends applying UniSeal with a trowel for best results.</p>	
Coverage	<p>Angle Fillet</p> <p>In fillet applications the material should be at least 20mm thickness in the horizontal and vertical surfaces. See standard details (to follow)</p> <p>For 20mm in both directions you will achieve c.78 liner metres per tin (15.6L)</p>
Linear bead	<ul style="list-style-type: none">■ For sealing pipe penetrations or steel reinforcement – see details (to follow).■ 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 (15.6L)
Full coverage	<ul style="list-style-type: none">■ 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
External tanking on blockwork	<p>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.</p>
Internal tanking on blockwork	<p>Installation should be carried out as per standard details (to follow). A loading coat concrete should be constructed immediately after the membrane has cured. A 50mm minimum cavity should be left between the membrane and the loading skin. This cavity must be filled with sand/cement mortar fill as work proceeds.</p>

Visqueen Axiom UniSeal	15.6 kilos Parts A + B	
Application	Approximate Coverage	15.6 kilo pack
Angle fillet	20mm	78 lin m
Penetrations: pipes, steel reinforcement	10mm x 10mm	156 lin m
Penetrations: overlap	150mm x 2.5mm	40 lin m
Full coverage - render coat	2.5mm thick	6.24m ²

Product & Performance Data:

PROPERTY	UNITS	METHOD	SPECIFICATION
TECHNICAL SPECIFICATIONS			
Viscosity (Brookfield) Component A	cP	ASTM D2196-86, at 25 C	44000-55000
Specific weight	gr/cm ³	ASTM D1475 / DIN 53217 / ISO 2811, at 20 C	approx. 1
Tack free time, at 77 F (25 C) & 55% RH	hours		0.5-1
Service Temperature	C		-40 to 80
Hardness	Shore A	ASTM D2240 / DIN 53505 / ISO R868	25
Tensile strength at break at 23 C	Kg/cm ² (N/mm ²)	ASTM D412 / EN-ISO-527-3	40 (4)
Perecent elongation at 23 C	%	ASTM D412 / EN-ISO-527-3	> 500

Axiom UniSeal	Value	Unit
Identification properties - average thickness t range, depending on required ground gas permeation resistance and application	2.0 – 6.0	mm
Water vapour diffusion resistance factor, μ -value	9,000	-
Water vapour diffusion resistance BS EN 1931 sD, calculated range from $sD = t \cdot \mu$ (t in m)	22.5 – 45	m
Water vapour diffusion resistance, calculated range	112.5 - 225	MNs.g-1
Radon diffusion coefficient D11 ISO/TS 11665-1312 (t = 2.16)	7.8 + 0.7	10 ⁻¹¹ m ² .s ⁻¹
Tensile strength at break (23 °C) BS EN ISO 5278	4	N.mm ⁻²
Elongation at break (23 °C) BS EN ISO 5278	≥ 500	%
Tack free time (25 °C & 55% RH)	0.5 – 1	h
Service temperature	-40 to 80	°C
Hardness BS EN ISO 8689	25	Shore A
Radon permeability - for pipe penetration applications (20 mm layer thickness) SP. Method 3873	9.8	10 ⁻¹² m ² /s

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