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BAB-18-028-P-A-UK
BDA Agrément®
Visqueen Axiom Guard
Basement & Tanking
Waterproofing

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SCOPE

This Agrément relates to Visqueen Axiom Guard (hereinafter the "Product") which consists of two variants (H+ and V+). The Product is designed for use as a liquid waterproofing membrane for external tanking and the structural waterproofing of above and below ground applications such as basements and sub-structures in accordance to BS 8102. The Product can be used in vertical (2-coat) and horizontal (1-coat) applications in new and existing domestic and non-domestic buildings. It is suitable for waterproofing porous surfaces such as concrete, fibrous cement, brickwork, blockwork, masonry, metal and timber surfaces, when used with a Visqueen Axiom Guard Primer basecoat. Any surface or complex detailing such as irregular profiles, penetrations, cracks and concrete expansion joints are fully filled, sealed and waterproofed.

DESCRIPTION

The Product is a one-component polyurethane (PU) liquid waterproofing membrane; it incorporates an accelerator that cures rapidly upon contact with humidity, to provide a fully bonded Type A (barrier) membrane when classified to BS 8102. This contributes to providing waterproofing protection Grades 1 and 2; and Grade 3 when part of a combined waterproofing protection solution design. The Product is used straight from the tin.

PRODUCT ILLUSTRATION



THIRD PARTY ACCEPTANCE

NHBC - For detailed information see section 3.3 (Third Party acceptance).

STATEMENT

It is the opinion of Kiwa Ltd. that the Product is fit for its' intended use, provided it is specified, installed and used in accordance with this Agrément.

Paul Oakley, BSc
Technical Manager, Building Products

Mark Crowther, M.A. (Oxon)
Kiwa Ltd. Technical Director

SUMMARY OF AGRÉMENT

This document provides independent information to specifiers, building control personnel, contractors, installers and other construction industry professionals considering the fitness for the intended use of the Product. This Agrément covers the following:

- Conditions of use;
- Initial Factory Production Control, Quality Management System and the Annual Verification procedure;
- Points of attention for the specifier and examples of typical details;
- Installation procedure;
- Independently assessed system characteristics and other system information;
- Compliance with national Building Regulations, other regulatory requirements and Third Party acceptance;
- Sources, including codes of practice, test and calculation reports.

MAJOR POINTS OF ASSESSMENT

Resistance to water and water vapour - the Product will resist the passage of moisture into the structure (see sections 2.1.5 and 2.1.6).

Resistance to mechanical damage - the Product has adequate resistance to indentation and will accept the limited foot traffic and loads associated with installation and normal service conditions (see section 2.1.7).

Behaviour in relation to fire - reaction to fire classification BS EN 13501-1 class E (see section 2.1.8).

Durability - under normal service conditions, the Product will provide an effective barrier to the transmission of moisture for the life of the structure in which it is incorporated (see section 2.1.10).

CE marking - The Agrément holder has taken responsibility for CE marking the Product in accordance with all relevant harmonised European Standards. An asterisk (*) appearing in this Agrément indicates that data shown is given in the manufacturer's Declaration of Performance (DoP).

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1.1 – CONDITIONS OF USE

1.1.1 Design considerations

See section 2.1.

1.1.2 Application

The assessment of the Product relates to its' use in accordance with this Agrément and the Agrément holder's requirements.

1.1.3 Assessment

Kiwa Ltd. has assessed the Product in combination with its' relevant DoPs and factory and site visits. Also, the NHBC Standards have been taken into consideration. Factory Production Control has been assessed.

1.1.4 Installation supervision

It is recommended that the quality of installation and workmanship is controlled by (a) competent person(s). Such person(s) shall be either a qualified employee of the Consulting Engineer or an employee of the installing contractor. The Product shall be installed strictly in accordance with this Agrément and with the Agrément holder's requirements.

1.1.5 Geographical scope

The validity of this document is limited to England, Wales, Scotland and Northern Ireland, with due regard to chapter 3 of this Agrément (CDM, national Building Regulations and Third Party Acceptance).

1.1.6 Validity

The purpose of this BDA Agrément® is to provide for well-founded confidence to apply the Product within the Scope described. The validity of this Agrément is three years after the issue date, and as published on www.kiwa.co.uk/bda. After this, the validity of the Agrément can be extended every three years after a positive review.

1.2 – INITIAL FACTORY PRODUCTION CONTROL (FPC)

- Kiwa Ltd. has determined that the Agrément holder has fulfilled all provisions of the specifications described in this Agrément in respect of the Product.
- The initial FPC audit demonstrated that the Agrément holder has a satisfactory Quality Management System (QMS) and is committed to continuously improving their FPC operations.
- A detailed Production Quality Specification (PQS) has been compiled to ensure traceability and compliance under the terms of this Agrément.

1.3 – QUALITY MANAGEMENT SYSTEM (QMS)

- The Agrément holder:
 - has an effective and well maintained QMS in operation which covers the necessary clauses required for BDA Agrément®.
 - is committed to continually improving their FPC, QMS and associated procedures.
- Document control and production line procedures were deemed satisfactory, with sufficient evidence provided in support of BDA Agrément® requirements.

1.4 – ANNUAL VERIFICATION PROCEDURE - CONTINUOUS SURVEILLANCE

In order to demonstrate that the FPC is in conformity with the requirements of the technical specification described in this Agrément, the continuous surveillance, assessment and approval of the FPC will be done at a frequency of not less than once per year by Kiwa Ltd.

2.1.1 Delivery, storage and site handling

The Product must be stored in sealed containers (tins) at temperatures of 5 °C to 25 °C. Unopened tins have an expected shelf-life of 12 months. See section 2.3.

2.1.2 Permitted applications

Only applications designed according to the specifications as given in this Agrément are allowed under this Agrément.

2.1.3 Building physics

The physical behaviour of structures incorporating the Product shall be verified as suitable by a competent specialist, who can be either a qualified employee of the specifier or a qualified consultant. The specialist will check the physical behaviour of the designed construction and if need be advise about improvement to achieve the final specification. It is recommended that the specialist co-operates closely with the Agrément holder.

2.1.4 General Design Considerations

This Agrément covers the use of the Product as a waterproofing membrane for use on concrete, fibrous cement, brickwork, blockwork, masonry, steel and timber surfaces. When applied to the internal face of a structure for any purpose other than as a damp proof membrane, the Product must be restrained against the effects of negative water pressure if applicable. In such cases, the restraining element should be hard-up against suitable protection for the membrane.

The Product is available in 15 kg tins and surface coverage is approximately 1.5 kg/m².

The Product is resistant to those chemicals likely to occur in normal service conditions.

The Product provides a long-lasting membrane. When applied over concrete surfaces it fills cracks in the concrete creating a protective vapor barrier system, penetrates in concrete up to a depth of 20 mm and maintains a water tight seal, thus increasing the strength of the concrete.

The Product is classified as a fully bonded Type A (barrier) protection tanking membrane as defined in BS 8102, and if used in accordance with that Standard.

When designing a complete fully bonded Type A membrane structure (as classified in BS 8102), if applied correctly with associated Visqueen ancillary items, the Product will provide the levels of protection Grades 1 and 2; and Grade 3 when part of a combined waterproofing protection solution design.

Complete waterproofing systems should be designed by a suitably qualified waterproofing design specialist who have successfully completed the Certified Surveyor in Structural Waterproofing (CSSW) qualification available from the Property Care Association (PCA).

A complete waterproofing system incorporating the Product must be designed to be:

- weathertight under all anticipated conditions
- capable of resisting impact loads, and accommodating all thermal movements without damage

To develop a robust design for protecting a structure against groundwater, a risk assessment must be carried out in line with guidance given in BS 8102.

The designer may need to specify one or a combination of waterproofing measures to ensure a combined waterproofing protection solution design.

Site construction sequencing should be assessed before the appropriate Visqueen Standard Detail is selected and approved by the designer. It is recommended the designer consults with the Agrément holder prior to product selection and design approval.

All basements must be designed and constructed to meet the requirements of BS 8102 and achieve a minimum of a grade 2 standard, with grade 3 being necessary for occupied space. Guidance is given in CIRIA Report 139.

Care is needed for the design at openings.

The level of workmanship and design detailing of joints, particularly around openings, should be in accordance with BS 6093.

A building specific site survey must be completed prior to application of the Product to ensure that the building substrate is suitable to receive treatment. The existing sub-structure must be structurally sound, clean and in a good state of repair, and show no evidence of rain/frost damage.

Performance factors in relation to the major points of assessment**2.1.5 Watertightness**

A free film sample of the Product has adequate watertightness to BS EN 1928 Method B in accordance with ETAG 005. The Product adequately resists the penetration of moisture from the ground into the structure.

2.1.6 Water vapour resistance (breathability)

The film breathes so there is no accumulation of moisture under the coat. A free film sample of the Product has adequate initial water vapour transmission to BS EN 1931 Method B in accordance with ETAG 005.

2.1.7 Mechanical and elastomeric properties

The Product has adequate tensile strength and tear strength. The Product fully bonds to the substrate.

- A sample of the Product applied on a steel support substrate has adequate resistance to dynamic indentation to EOTA TR 006.
- A sample of the Product applied on a steel support has adequate resistance to static indentation to EOTA TR 007.

- The Product can be damaged by sharp objects and therefore care should be taken, particularly when the membrane is exposed during construction and backfilling or screeding operations.

Provided sufficient care is taken, the Product will not be damaged by normal foot traffic.

When installed, the Product is capable of accommodating the minor movements likely to occur under normal service conditions.

The Product has adequate abrasion resistance.

2.1.8 Behaviour in relation to fire

The Product has a reaction to fire classification according to BS EN 13501-1 to Euroclass E.

2.1.9 Temperature use

Application temperature should be above 5 °C. Once installed the product has a service temperature range of -40 to 80 °C.

2.1.10 Durability

The Product has adequate resistance to weather - water ageing in accordance with EOTA TR 012. The Product has adequate UV resistance and is suitable for exposed conditions. The Product is not affected by contact with an alkaline substrate or soil. The Product is resistant to those chemicals likely to occur in normal service conditions.

The Product, when fully protected and subjected to normal service conditions, will provide an effective barrier to the transmission of moisture for the expected design service life of the structure in which it is incorporated.

2.1.11 Maintenance

As the Product is confined and has suitable durability, maintenance is not required. Any damage occurring during installation must be repaired prior to installation of any protection.

2.2 – EXAMPLES OF DETAILS

Figure 1 - Ground bearing slab - typical edge detail

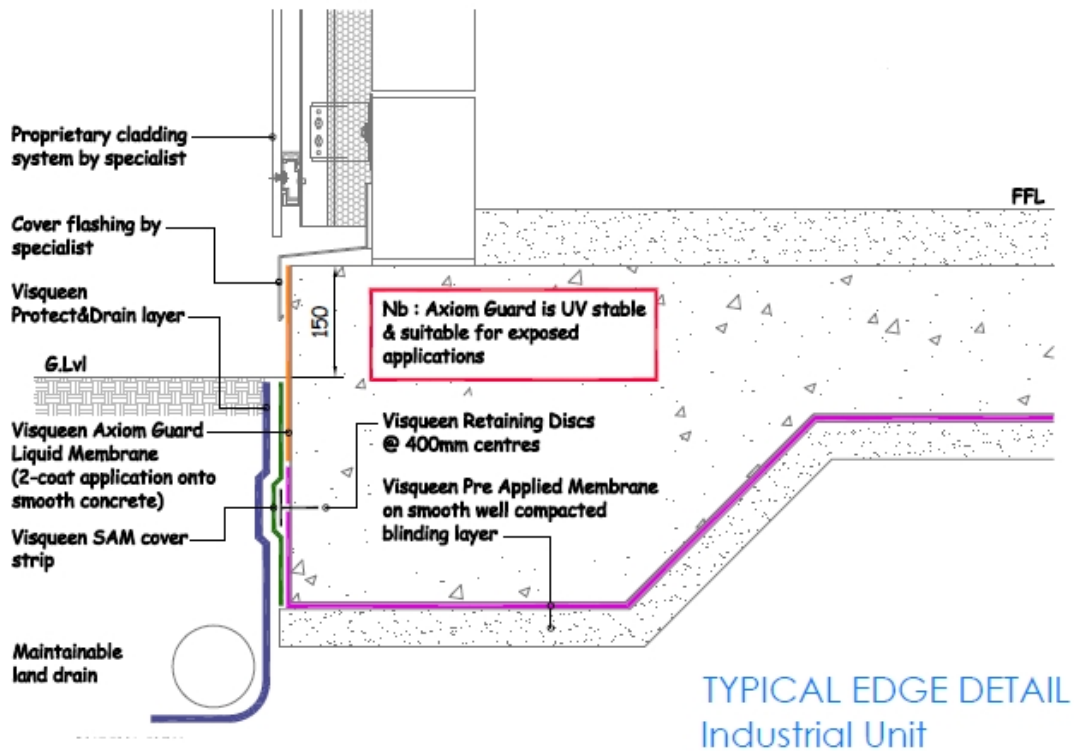


Figure 2 - Ground bearing slab - typical perimeter concrete upstand detail

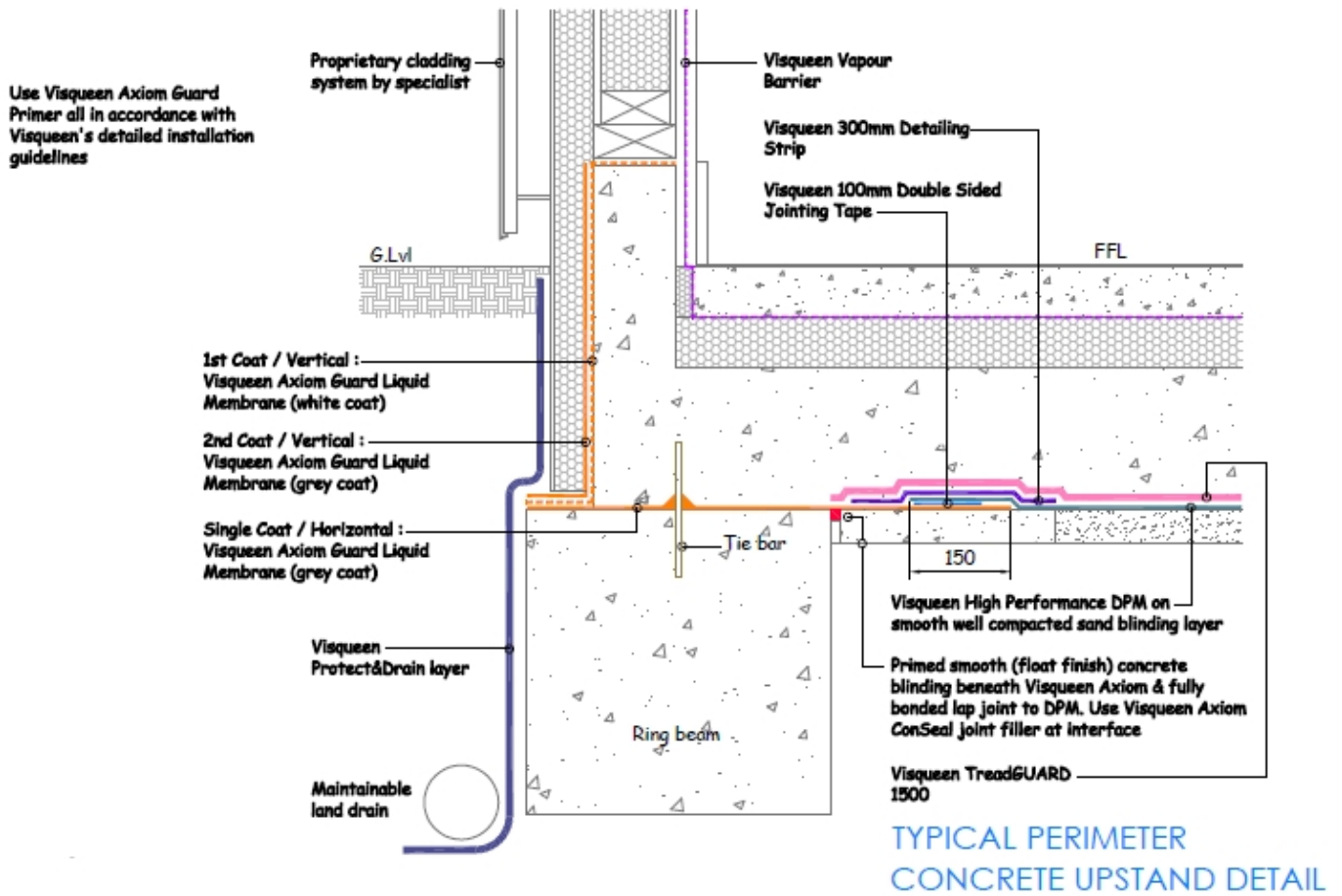


Figure 3 - RC wall - typical RC wall/slab detail

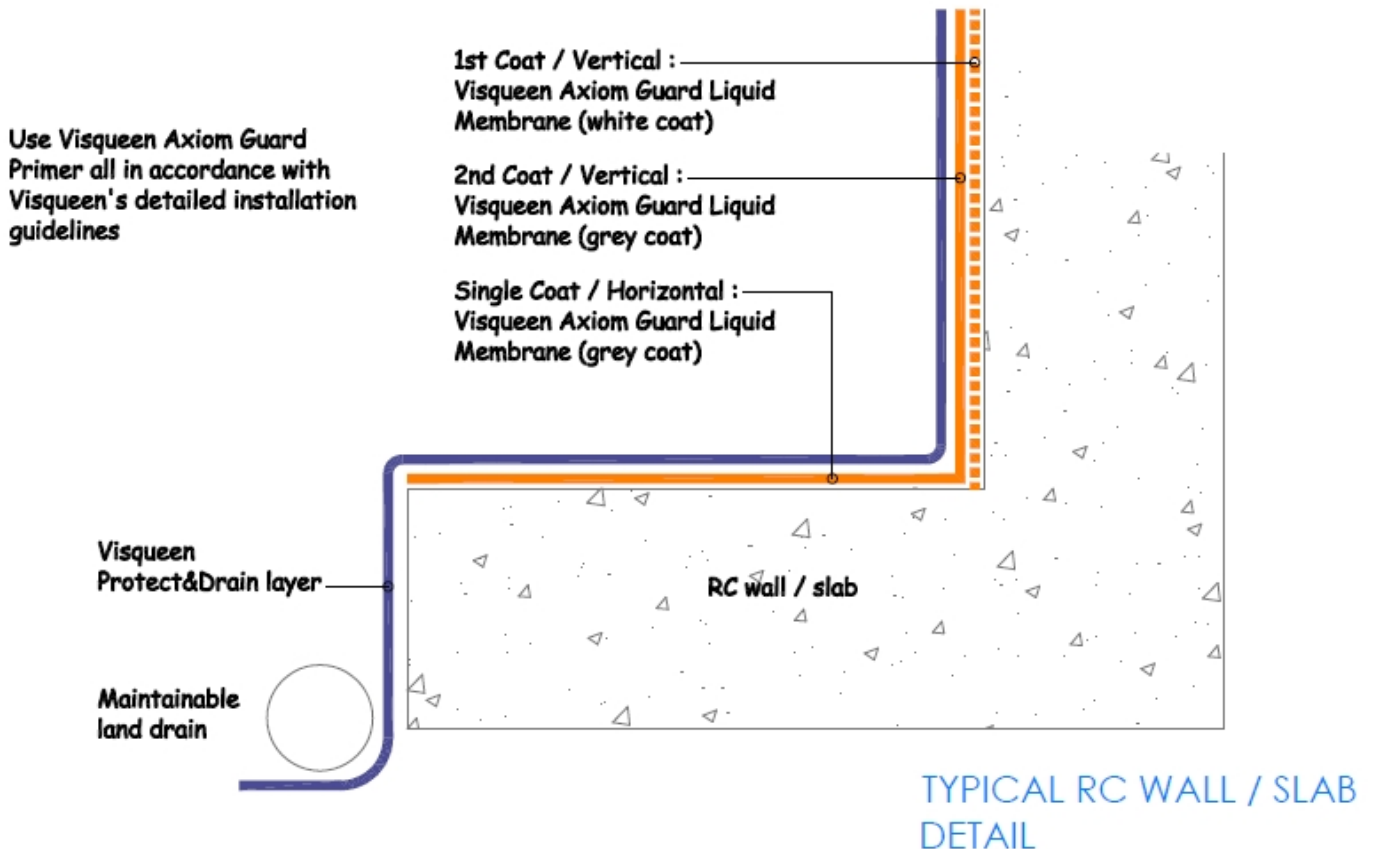
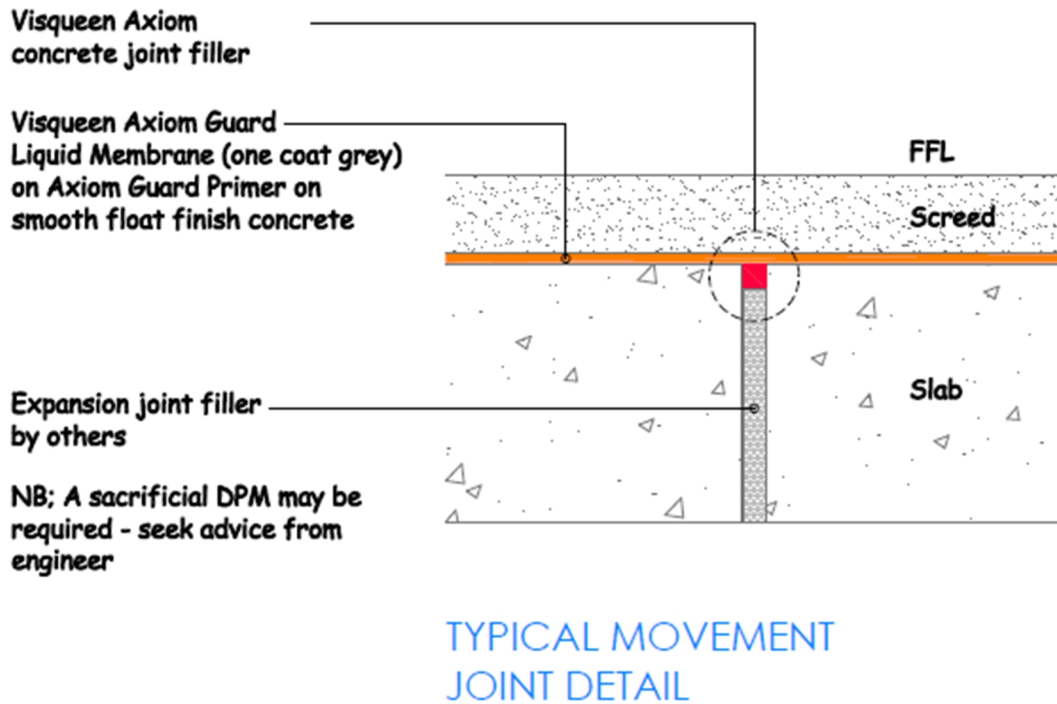


Figure 4 - Ground bearing slab - typical movement joint detail



2.3 – INSTALLATION

2.3.1 General

Installation of the Product and ancillary items shall be carried out in a workmanlike manner in accordance with the Agrément holder's Application Guide and current good building practice, by installers trained and approved by the Agrément holder.

2.3.2 Site assessment checks and suitability survey

A pre-installation survey (both internal and external) of the existing substructure must be carried out to determine suitability to receive the Product, and whether any repairs are necessary to the substrate surface.

2.3.3 Site surface preparatory works

Prior to application the following preparation should be completed:

- All surfaces should be sound, clean and free from contamination, including loose patches of material, dry, smooth, and free from frost, oil, paint, grease and condensation.
- Cement laitance, loose particles, mould release agents and any pre-existing cured membranes must be removed.
- Fill surface irregularities with a suitable filler such as a 3:1 mortar mix.
- All substrate cracks must be repaired and filled prior to Product application.

2.3.4 Guidance

Installation of the Product must be in accordance with the relevant requirements of CP 102, BS 8000-0, BS 8000-4, BS 8102, the Agrément holder's Application Guide and the documents supporting the national Building Regulations.

New concrete, screeds or renderings should have a trowelled, lightly tamped or brushed finish, and be free from defects. Brickwork, blockwork or masonry should be flush pointed or finished with a sand/cement render. Defects in existing surfaces should be made good.

The Product must not be applied to exposed surfaces in wet conditions (i.e. rain or standing water) or when air temperature is at or below 5 °C, nor if these conditions are likely to occur before the membrane has dried.

Application is in 1.5mm thick coats. Care must be taken in application to lay-down the right thickness and to ensure even application a wet film thickness comb must be used. The cured membrane can tear or break if it is too thin.

Since the curing action of the Product is very quick, an installer must endeavour to finish the entire area to be waterproofed in a single day to avoid cold joints. However, if a very large area is to be treated on successive days, cold joints can easily be made by lapping the new membrane over the previously applied membrane.

If a concrete screed layer is to be applied over the Product, the membrane is made rough by sand broadcasting (i.e. by scattering a thin layer of sand by hand over the wet membrane) before it has fully cured. The sand sticks to the membrane and provides a rough surface the concrete can adhere to.

2.3.5 Delivery, storage and site handling

The Product is delivered to site in 15 kg tins. Each tin bears the Product name, the Agrément holder's name and the BDA Agrément® logo incorporating the number of this Agrément.

The Agrément holder has taken the responsibility of classifying and labelling the product under the CLP Regulation (EC) No 1272/2008 on the classification, labelling and packaging of substances and mixtures.

Store the Product away from any sources of ignition at temperatures between 5 °C and 30 °C. The Product will remain in optimum condition if correctly stored in sealed tins for a maximum of 12 months. Once opened use as soon as possible. To avoid the risk of spillage, always store and transport in a secure upright position. Rollers and brushes may not be re-used.

The Product contains flammable solvents, and should be used in well ventilated, non-smoking areas, away from sources of ignition. If used in closed spaces use ventilators and carbon active face masks. The Product can affect sensitive skin and gloves are recommended when using the Product.

2.3.6 Application Procedure

Axiom Guard Primer

Application temperature should be above 5°C. Gloves and suitable PPE should be worn during preparation and application. Use directly from the tin or can be decanted to a roller tray. Apply with roller or brush. Do not over apply and allow to puddle.

Only a single coat is required. Apply using a coverage at a recommended consumption of 0.2 kg/m² depending on the porosity of the surface. Some surfaces may require a higher application rate subject to substrate porosity. Consult the Agrément holder for further advice.

Drying time is 6 hours (wet cement) or 12 hours (dry cement) and Axiom Guard Primer is fully cured after 24 hours. Prior to use, please refer to the Agrément holder's Material Safety Data Sheet (MSDS).

Axiom Guard

Application temperature should be above 5 °C. Gloves and suitable PPE should be worn during preparation and application. The Product is used directly from the tin or decanted to a roller tray. Apply with roller or brush.

Where applicable, the second (top) coat must be applied on the same day as the first (base) coat. If more than 24 hours passes between application of the base coat and the top coat, reapply another basecoat. Ensure that the additional basecoat is dry before applying the top coat.

Horizontal Concrete surfaces

Apply Axiom Guard H+ using a coverage at a recommended consumption of 1.5 kg/m². One coat is recommended with a minimum 6-hour drying time.

Concrete, metal and masonry walls (including vertical surfaces of basements and masonry retaining walls)

Apply Axiom Guard V+ using a coverage at a recommended consumption of 1.5 kg/m². Two coats are required with a minimum 6-hour drying time between coats.

1st coat (white) and 2nd coat (grey). The use of a two-colour coating application allows the easy identification of any areas that have not received full coverage with the 2nd coat.

External Tanking

The base structural slabs and the walls should be formed, and the Product should then be applied to the vertical plane in two coats (white, then grey).

The Product should then be protected against backfilling using Visqueen Protect&Drain or Treadguard1500.

Details

Where the structure is penetrated by features such as pipes or conduits, the technical advice of the Agrément holder must be sought. Similarly, the advice of the Agrément holder should be sought in respect of detailing at expansion and construction joints.

For general guidance on lapping & jointing, service pipe penetrations, sealing to cavity wall constructions, protecting membranes and waterproofing system components refer to the Visqueen "Installation/System Components", pages 84 - 91.

Repair

The Product is repaired by re-coating the damaged area at the appropriate rate for the application prior to the installation of any subsequent protection.

2.4 – INDEPENDENTLY ASSESSED PRODUCT CHARACTERISTICS

In respect of the cured membrane:

2.4.1 Watertightness

Watertightness of free film sample to BS EN 1928 Method B in accordance with ETAG 005 - watertight at 200 kPa/72h.

2.4.2 Water vapour resistance (breathability)

Initial water vapour transmission of a free film sample according to BS EN 1931 Method B in accordance with ETAG 005:

- Mean density moisture flow rate (g) - 1.09×10^{-7} kg/m²/s
- Mean moisture resistance factor μ - 2480

2.4.3 Mechanical and elastomeric properties

- Resistance to dynamic indentation of sample applied on a steel support substrate to EOTA TR 006 at 23 °C:
 - 5 perforations by a 6 mm diameter puncturing tool
 - No perforations by a 10 mm diameter puncturing tool
- Resistance to static indentation of sample applied on a steel support to EOTA TR 007 at 23 °C - watertight at 70 N, 150 N and 200 N.

2.4.4 Behaviour in relation to fire

The Product has a reaction to fire classification according to BS EN 13501-1 to Euroclass E.

2.4.5 Temperature use

Service temperature -40 to 80 °C

2.4.6 Durability

- Resistance to weathering - resistance to water ageing of sample applied on a steel plate support substrate to EOTA TR 012 – exposed to water ageing – water of 60 °C for 30 days - no visible defects on upper weathering surface.

2.4.7 Thickness

Thickness of a free film sample to BS EN 1849-1 - mean 1.5 mm.

2.5 – ANCILLARY ITEMS

Note:

Ancillary items detailed in this section may be used in conjunction with the Product but fall outside the scope of this Agrément

Visqueen Axiom Guard Primer - a one component, PU based primer suitable for all substrates including green concrete, brick, metal and wood. The penetrative formulation seals and primes porous substrate surfaces. Its' low viscosity and balanced curing speed result in good wetting, impregnation and paint-over time on all substrates, whether of high, low or no porosity (e.g. glass and metals).

Visqueen Protect&Drain (variants 6, 12 or 25) - a drainage board for protecting the Product during backfilling operations in external tanking applications; promotes drainage of water away from the structure.

Visqueen Axiom CreteSeal - a single component low modulus structural concrete expansion joint sealant. It cures by reaction with atmospheric humidity to produce a joint sealant with a 50 % joint movement accommodation factor and remains elastic < 0 °C. The extrusion rate and tooling of the sealant remain the same throughout a very wide range of temperature and humidity conditions.

Visqueen Axiom UniSeal - a two-part product: a bitumen-extended polyurethane fluid with an accelerator hardener. This product cures rapidly to give a continuous elastic and flexible, tough rubber-like, fully bonded waterproofing coating. For various applications such as waterproofing, basement and retaining wall, penetrations and detailing irregular profiles and penetrations.

Visqueen Axiom Shield LAC - a liquid membrane which rapidly dries to form a damp proof membrane (DPM), vapour barrier and waterproof membrane.

Visqueen Zedex CPT High Performance DPC - a cavity tray flexible damp-proof course (DPC) available in pre-formed cloak or top hat units, manufactured from co-polymer thermoplastic (CPT). For waterproofing continuation applications. Good tear resistance and performance under high compressive loads. Low permeability to radon and carbon dioxide gases.

Visqueen Gas Resistant (GR) Lap Tape - a bitumen and aluminium composition single sided tape. It provides a gas tight seal for membrane overlaps and secures gas membranes to DPCs.

Visqueen VX25 Waterstop - prevents the ingress of water through cast in-situ concrete construction joints.

Visqueen Treadguard1500 - a tough heavy duty 100% recycled board designed to have high compressive strength and impact puncture resistance. It protects loose laid membranes against damage from following trades or the process of positioning spacers and positioning of reinforcement, prior to laying a reinforced concrete slab.

CHAPTER 3 – CDM, NATIONAL BUILDING REGULATIONS AND THIRD PARTY ACCEPTANCE

3.1 – THE CONSTRUCTION (DESIGN AND MANAGEMENT) REGULATIONS 2015 AND THE CONSTRUCTION (DESIGN AND MANAGEMENT) REGULATIONS (NORTHERN IRELAND) 2016

Information in this Agrément may assist the client, Principal Designer/CDM co-ordinator, designer and contractors to address their obligations under these Regulations.

3.2 – NATIONAL BUILDING REGULATIONS

In the opinion of Kiwa Ltd., the Product, if installed and used in accordance with Chapter 2 of this Agrément, can satisfy or contribute to satisfying the relevant requirements of the following national Building Regulations.

3.2.1 – REQUIREMENTS: THE BUILDING REGULATIONS 2010 (ENGLAND) AND SUBSEQUENT AMENDMENTS

- C2(a) Resistance to moisture - the Product will enable a structure to meet this Requirement
- Regulation 7 Materials and workmanship - the Product is acceptable

3.2.2 – REQUIREMENTS: THE BUILDING (AMENDMENT) REGULATIONS 2014 (WALES) AND SUBSEQUENT AMENDMENTS

- C2(a) Resistance to moisture - the Product will enable a structure to meet this Requirement
- Regulation 7 Materials and workmanship - the Product is acceptable

3.2.3 – REQUIREMENTS: THE BUILDING (SCOTLAND) REGULATIONS 2004 AND SUBSEQUENT AMENDMENTS

3.2.3.1 Regulations 8(1)(2) Fitness and durability of materials and workmanship

- The Product is durable and fit for its intended purpose and can contribute to a construction to satisfy this Regulation

3.2.3.2 Regulation 9 Building Standards - Construction

- 3.4 Moisture from the ground - the Product will enable a structure to satisfy the requirements of this Standard
- 7.1(a) Statement of sustainability - the Product can contribute to meeting the relevant requirements of Regulation 9, Standards 1 to 6 and therefore will contribute to a construction meeting a bronze level of sustainability as defined in this Standard.

3.2.3.3 Regulation 12 Building Standards - Conversion

- All comments given under Regulation 9 also apply to this Regulation, with reference to Schedule 6 of The Building (Scotland) Regulations 2004 and subsequent amendments, clause 0.12.1 of the Technical Handbook (Domestic) and clause 0.12 of the Technical Handbook (Non-Domestic)

3.2.4 – REQUIREMENTS: THE BUILDING REGULATIONS (NORTHERN IRELAND) 2012 AND SUBSEQUENT AMENDMENTS

- 23(a)(b)(i) Fitness of materials and workmanship - the Product is acceptable
- 28(a)(b) Resistance to moisture and weather - the Product will enable a structure to satisfy the requirements of this Regulation

3.3 – THIRD PARTY ACCEPTANCE

NHBC – In the opinion of Kiwa Ltd, Visqueen Axiom Guard, if installed, used and maintained in accordance with this Agrément, can satisfy or contribute to satisfying the relevant requirements in relation to NHBC Standards, Chapter 5.1 Substructure and ground bearing floors and Chapter 5.4 Waterproofing of basements and other below ground structures.

CHAPTER 4 – SOURCES

- BS EN ISO 527-3:1996, BS 2782-3: Method 326E:1995 Plastics. Determination of tensile properties. Test conditions for films and sheets
- BS EN 1849-1:2000 Flexible sheets for waterproofing. Determination of thickness and mass per unit area. Bitumen sheets for roof waterproofing
- BS EN 1928:2000 Flexible sheets for waterproofing. Bitumen, plastic and rubber sheets for roof waterproofing. Determination of watertightness
- BS EN 1931:2000 Flexible sheets for waterproofing. Bitumen, plastic and rubber sheets for roof waterproofing. Determination of water vapour transmission properties
- BS EN 13501-1:2007+A1:2009 Fire classification of construction products and building elements.
- BS 6093:2006+A1:2013 Design of joints and jointing in building construction. Guide
- BS 8000-0:2014 Workmanship on construction sites. Introduction and general principles
- BS 8000-4:1989 Workmanship on building sites. Code of practice for waterproofing
- BS 8102:2009 Code of practice for protection of below ground structures against water from the ground
- BS 8215:1991 Code of practice for design and installation of damp-proof courses in masonry construction
- CP 102:1973 Code of practice for protection of buildings against water from the ground
- ISO 868:2003 Plastics and ebonite – Determination of indentation hardness by means of a durometer (Shore hardness)
- ETAG 005:2004 Guideline for European Technical Approval of liquid applied roof waterproofing kits - Part 1: General
- ETAG 005:2004 Guideline for European Technical Approval of liquid applied roof waterproofing kits - Part 6: Specific stipulations for kits based on polyurethane
- EOTA TR 006:1999 Determination of the resistance to dynamic indentation
- EOTA TR 007:2004 Determination of the resistance to static indentation
- EOTA TR 012:2004 Exposure procedure for accelerated ageing by hot water
- CIRIA Report 139:1995 Water-resisting basements
- The CLP Regulation No 1272/2008 on classification, labelling and packaging of substances and mixtures

Remark: apart from these sources confidential reports may also have been assessed; any relevant reports are in the possession of Kiwa Ltd. and kept in the Technical Assessment File of this Agrément; the Installation Guides are current at the time of publication and may be subject to change, the Agrément holder should be contacted for clarification of revision.

CHAPTER 5 – AMENDMENT HISTORY

Revision	Amendment Description	Amended By	Approved By	Date
-	Draft for internal review	S. Lloyd	C. Forshaw	April 2018
A	Draft for Client review	C. Forshaw	C. Yates	May 2018
B	Draft for Third-Party acceptance	C. Forshaw	C. Yates	June 2018
C	Amendments in response to Third-Party comments of 25-06-18	C. Forshaw	P. Oakley	July 2018
D	First issue	C. Forshaw	P. Oakley	July 2018