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Agrément Certificate

86/1593

Product Sheet 2 Issue 2

DERBIGUM ROOFING MEMBRANES

DERBIGUM BLUROOF MEMBRANE

This Agrément Certificate Product Sheet⁽¹⁾ relates to Derbigum BluRoof Membrane, an atactic polypropylene (APP) polymer-modified bitumen waterproofing layer for use in blue roof specifications on zero-fall warm roofs with limited access, including green roofs, in combination with a storm water attenuation system⁽²⁾.

(1) Hereinafter referred to as 'Certificate'.

(2) The storm water attenuation system is outside the scope of this Certificate.

The assessment includes

Product factors:

- compliance with Building Regulations
- compliance with additional regulatory or non-regulatory information where applicable
- evaluation against technical specifications
- assessment criteria and technical investigations
- uses and design considerations

Process factors:

- compliance with Scheme requirements
- installation, delivery, handling and storage
- production and quality controls
- maintenance and repair

Ongoing contractual Scheme elements†:

- regular assessment of production
- formal 3-yearly review



KEY FACTORS ASSESSED

- Section 1. Mechanical resistance and stability
- Section 2. Safety in case of fire
- Section 3. Hygiene, health and the environment
- Section 4. Safety and accessibility in use
- Section 5. Protection against noise
- Section 6. Energy economy and heat retention
- Section 7. Sustainable use of natural resources
- Section 8. Durability

The BBA has awarded this Certificate to the company named above for the product described herein. This product has been assessed by the BBA as being fit for its intended use provided it is installed, used and maintained as set out in this Certificate.

On behalf of the British Board of Agrément

Date of Second issue: 13 September 2023

Originally certified on 23 October 2018

Hardy Giesler
Chief Executive Officer

This BBA Agrément Certificate is issued under the BBA's Inspection Body accreditation to ISO/IEC 17020. Sections marked with † are not issued under accreditation.

The BBA is a UKAS accredited Inspection Body (No. 4345), Certification Body (No. 0113) and Testing Laboratory (No. 0357).

Readers MUST check that this is the latest issue of this Agrément Certificate by either referring to the BBA website or contacting the BBA directly.

The Certificate should be read in full as it may be misleading to read clauses in isolation.

Any photographs are for illustrative purposes only, do not constitute advice and should not be relied upon.

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SUMMARY OF ASSESSMENT AND COMPLIANCE

This section provides a summary of the assessment conclusions; readers should refer to the later sections of this Certificate for information about the assessments carried out.

Compliance with Regulations

Having assessed the key factors, the opinion of the BBA is that Derbigum BluRoof Membrane, if installed, used and maintained in accordance with this Certificate, can satisfy or contribute to satisfying the relevant requirements of the following Building Regulations:



The Building Regulations 2010 (England and Wales) (as amended)

Requirement:	B4(2)	External fire spread
Comment:		On a suitable substructure, the product may contribute to satisfying this Requirement. See section 2 of this Certificate.
Requirement:	C2(b)	Resistance to moisture
Comment:		The product, including joints, can enable a roof to satisfy this Requirement. See section 3 of this Certificate.
Regulation:	7(1)	Materials and workmanship
Comment:		The product is acceptable. See sections 8 and 9 of this Certificate.



The Building (Scotland) Regulations 2004 (as amended)

Regulation:	8(1)(2)	Fitness and durability of materials and workmanship
Comment:		The use of the product satisfies the requirements of this Regulation. See sections 8 and 9 of this Certificate.
Regulation:	9	Building standards – construction
Standard:	2.8	Spread from neighbouring buildings
Comment:		On a suitable substructure, the product may contribute to satisfying this Standard, with reference to clause 2.8.1 ⁽¹⁾⁽²⁾ . See section 2 of this Certificate.
Standard:	3.10	Precipitation
Comment:		The product, including joints, can enable a roof to satisfy the requirements of this Standard, with reference to clauses 3.10.1 ⁽¹⁾⁽²⁾ and 3.10.6 ⁽¹⁾⁽²⁾ . See section 3 of this Certificate.
Standard:	7.1(a)	Statement of sustainability
Comment:		The product can contribute to satisfying 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.
Regulation:	12	Building standards – conversion
Comment:		All comments given for the product under Regulation 9, Standards 1 to 6, also apply to this Regulation, with reference to clause 0.12.1 ⁽¹⁾⁽²⁾ and Schedule 6 ⁽¹⁾⁽²⁾ .

(1) Technical Handbook (Domestic).
(2) Technical Handbook (Non-Domestic).



The Building Regulations (Northern Ireland) 2012 (as amended)

Regulation:	23(1)(a)(i)	Fitness of materials and workmanship
Comment:	(iii)(b)(i)	The product is acceptable. See sections 8 and 9 of this Certificate.
Regulation:	28(b)	Resistance to moisture and weather
Comment:		The product, including joints, can enable a roof to satisfy the requirements of this Regulation. See section 3 of this Certificate.
Regulation:	36(b)	External fire spread
Comment:		On a suitable substructure, the use of the product may contribute to satisfying this Regulation. See section 2 of this Certificate.

Additional Information

NHBC Standards 2023

In the opinion of the BBA, Derbigum BluRoof Membrane, if installed, used and maintained in accordance with this Certificate, can satisfy or contribute to satisfying the relevant requirements in relation to *NHBC Standards*, Chapter 7.1 *Flat roofs, terraces and balconies*.

In addition, in the opinion of the BBA, the product, when installed and used in accordance with this Certificate, can satisfy or contribute to satisfying the relevant requirements in relation to *NHBC Standard for Conversions and Renovations*, taking account of other relevant guidance within the chapter and the suitability of the substrate to receive the product.

The NHBC Standards do not cover the refurbishment of existing roofs.

Fulfilment of Requirements

The BBA has judged Derbigum BluRoof Membrane to be satisfactory for use as waterproofing layer in blue roof specifications on zero-fall warm roofs with limited access, including green roofs, in combination with a storm water attenuation system⁽¹⁾.

(1) The storm water attenuation system is outside the scope of this Certificate.

ASSESSMENT

Product description and intended use

The Certificate holder provided the following description for the product under assessment. Derbigum BluRoof Membrane consists of:

- Derbigum BluRoof Membrane — an APP polymer-modified bitumen torch-applied cap sheet reinforced with a glass fibre mat (55 g·m⁻²) and a non-woven polyester core (150 g·m⁻²). The lower face is a heat-activated adhesive layer
- Derbigum BluRoof Membrane (AR) — a root-resistant version of the standard membrane complying with BS EN 13948 : 2007.

The product has the nominal characteristics given in Table 1.

Table 1 Nominal characteristics of Derbigum BluRoof Membrane

Characteristic (unit)	Value
Thickness (mm)	4.0
Width (m)	1.1
Roll length (m)	8
Roll weight (kg)	37
Mass per unit area (kg·m ⁻²)	4.2

Ancillary Item

The following ancillary item must be used where specified with the product, and has been assessed with the product:

- Derbiprimer S — a cold bituminous impregnation primer for use in preparation of the substrate prior to the application of the product.

The Certificate holder recommends the following ancillary items for use with the product, but these materials have not been assessed by the BBA and are outside the scope of this Certificate:

- FC6 Drainage Layer — a geo-composite unit, comprising a non-woven geotextile filtration layer that is bonded to a high-density polyethylene (HDPE) studded membrane core
- VF Series Void Former — forming a space for temporary storage of rainwater
- Harmer OF46 — overflow assembly
- BluRoof Patented Flow Restrictor — for use with Harmer AV 400 outlet
- Harmer AV 400 — an aluminium roof drainage outlet
- Blackdown Green Roofs — an extensive, biodiverse and intensive green roof system
- Skyline — a polyester powder coated aluminium coping, soffit and fascia system
- Modulock — a raised adjustable pedestal system for paving and decking (non-combustible version available)
- VTherm VIP — a vacuum insulated panel
- Alumasc Multi-fix Dual Density Mineral Wool — thermal insulation
- Alumasc C-Glass — foamed glass thermal insulation
- Monoscreed — a curing screed
- self-adhesive primers
- PU adhesives for insulation boards
- insulation boards
- Air and Vapour Control Layers (AVCLs)
- base sheets and underlays
- glass-based bituminous membranes
- walkway sheets.

Applications

The product is intended for use in the following situation:

- a waterproofing layer in a blue roof specification on zero-fall warm roofs with limited access, including green roofs, in combination with a storm water attenuation system⁽¹⁾.

(1) Full details of the storm water attenuation system are given in the Certificate holder's publication *BluRoof Stormwater Management System*, and detailed specifications are available from the Certificate holder. The BBA has not assessed the storm water attenuation system and all aspects of the performance of the system are outside the scope of this Certificate.

The product is installed fully bonded using the Derbigum Torch System (covered by Product Sheet 1 of this Certificate).

Definitions for products and applications inspected

The following terms are defined for the purpose of this Certificate as:

- limited access roof — a roof subjected only to pedestrian traffic for maintenance of the roof covering, cleaning of gutters, etc
- zero-fall roof — a roof having a finished fall which can vary between 0° and 1:80
- blue roof — a flat roof designed to allow controlled attenuation of rainfall during heavy storm events, as part of sustainable urban drainage systems (SuDS)
- roof garden (intensive) — a roof with a substantial layer of growing medium with planting that can include shrubs and trees, generally accessible to pedestrians
- green roof (extensive) — a roof with a shallow layer of growing medium planted with low-maintenance plants such as mosses, sedums, grasses and some wild flower species
- green roof (biodiverse) — a roof with a layer of growing medium supporting a customised planting mix which encourages biodiversity.

Product assessment – key factors

The product was assessed for the following key factors, and the outcome of the assessments is shown below. Conclusions relating to the Building Regulations apply to the whole of the UK unless otherwise stated.

1 Mechanical resistance and stability

Not applicable.

2 Safety in case of fire

Data were assessed for the following characteristic.

2.1 External fire spread

2.1.1 When tested to DD CEN/TS 1187 : 2012 Test 4 and classified to BS EN 13501-5 : 2016, the system given in Table 2 achieved B_{ROOF}(t4) for slopes below 10°.

<i>Table 2 External fire spread tests</i>	
	System ⁽¹⁾
Substrate	16 mm wood particle board
Primer	Derbiprimer S
AVCL	0.25 mm Derbicoat Alu Selfix SKT ⁽²⁾
Adhesive	Derbitech FA ⁽²⁾
Insulation	120 mm Alumasc BGT PIR ⁽²⁾
Underlay	2.5 mm Derbicoat NT ⁽²⁾
Cap sheet	4 mm Derbigum BluRoof Membrane

(1) Classification report 18601C issued by Warringtonfire Gent. A copy of the report is available from the Certificate holder.

(2) These components are outside the scope of this Certificate.

2.1.2 On the basis of data assessed, the system listed in Table 2 will be unrestricted by the documents supporting the national Building Regulations with respect to proximity to a boundary. Restrictions may apply at junctions with compartment walls.

2.1.3 A roof incorporating the product will also be unrestricted under the national Building Regulations with respect to a boundary in the following circumstances:

- when protected by an inorganic covering (eg gravel or paving slabs) listed in the Annex of Commission Decision 2000/553/EC
- irrigated green roofs.

2.1.4 In Wales and Northern Ireland, when used on flat roofs using a substrate designated in the documents supporting the national Building Regulations, with the surface finishes listed below, the roof is also deemed to be unrestricted with respect to a boundary:

- bitumen-bedded stone chippings covering the whole surface to a depth of not less than 12.5 mm
- bitumen-bedded tiles of a non-combustible material
- sand and cement screed, or
- macadam.

2.1.5 The classification and permissible areas of use of other specifications must be confirmed by reference to the requirements of the documents supporting the national Building Regulations.

2.1.6 If allowed to dry, the plants used may allow flame spread across the roof. This must be taken into consideration when selecting suitable plants for the roof. Appropriate planting irrigation and/or protection must be applied to ensure the overall fire-rating of the roof is not compromised.

3 Hygiene, health and the environment

Data were assessed for the following characteristics.

3.1 Weathertightness

3.1.1 Results of weathertightness tests are given in Table 3.

<i>Table 3 Weathertightness tests</i>			
Product assessed	Assessment method	Requirement	Result
4 mm Derbigum BluRoof Membrane	Watertightness to BS EN 1928 : 2000	No leakage after 24-hour exposure at 10 kPa	Pass
	Peel resistance of joints to BS EN 12316-1 : 2000 longitudinal direction	$\geq 40 \text{ N}\cdot(50 \text{ mm})^{-1}$	Pass
	Peel resistance of joints to BS EN 12316-1 : 2000 transverse direction	$\geq 40 \text{ N}\cdot(50 \text{ mm})^{-1}$	Pass
	Shear resistance of joints to BS EN 12317-1 : 2000 longitudinal direction	$\geq 500 \text{ N}\cdot(50 \text{ mm})^{-1}$	Pass
	Shear resistance of joints to BS EN 12317-1 : 2000 longitudinal direction	$\geq 500 \text{ N}\cdot(50 \text{ mm})^{-1}$	Pass
	System build-up: - 18 mm plywood deck - Derbiprimer S - 2.3 mm Derbicoat Alu Selfix AVCL ⁽¹⁾ - Derbitech FA adhesive ⁽¹⁾ - 120 mm Powerdeck U insulation ⁽¹⁾ - 2.5 mm Derbicoat NT underlay ⁽¹⁾ - 4 mm Derbigum BluRoof Membrane cap sheet	Resistance to wind uplift (pull-off under suction) to MOAT 64 : 2001	Maximum suction pressure not causing failure of the specimen

(1) These components are outside the scope of this Certificate.

3.1.2 On the basis of data assessed, Derbigum BluRoof Membrane, including joints, when completely sealed and consolidated, will adequately resist the passage of moisture into the interior of a building and so satisfy the requirements of the national Building Regulations.

3.1.3 On the basis of data assessed, the adhesion of the bonded product is sufficient to resist the effects of wind suction, elevated temperature and thermal shock conditions likely to occur in practice and remain weathertight.

3.2 Resistance to mechanical damage

3.2.1 Results of resistance to mechanical damage tests are given in Table 4.

Table 4 Resistance to mechanical damage tests

Product assessed	Assessment method	Requirement	Result
4 mm Derbigum BluRoof Membrane	Resistance to static loading to BS EN 12730 : 2015 Method A (EPS substrate)	Declared value ≥ 20 kg	Pass
	Resistance to static loading to BS EN 12730 : 2015 Method B (concrete substrate)	Declared value ≥ 20 kg	Pass
	Resistance to impact to BS EN 12691 : 2018 Method A (aluminium substrate)	Declared value ≥ 1250 mm	Pass
	Resistance to impact to BS EN 12691 : 2018 Method B (EPS substrate)	Declared value ≥ 1250 mm	Pass
	Tensile strength to BS EN 12311-1 : 2000 longitudinal direction	Declared value $700 \text{ N} \cdot (50 \text{ mm})^{-1} \pm 20\%$	Pass
	Tensile strength to BS EN 12311-1 : 2000 transverse direction	Declared value $650 \text{ N} \cdot (50 \text{ mm})^{-1} \pm 20\%$	Pass
	Elongation at break to BS EN 12311-1 : 2000 longitudinal direction	Declared value $45\% \pm 15\%$ absolute	Pass
	Elongation at break to BS EN 12311-1 : 2000 transverse direction	Declared value $45\% \pm 15\%$ absolute	Pass
	Nail tear to BS EN 12310-1 : 2000 longitudinal direction	≥ 150 N	Pass
	Nail tear to BS EN 12310-1 : 2000 transverse direction	≥ 150 N	Pass

3.2.2 On the basis of data assessed, Derbigum BluRoof Membrane can accept, without damage, the limited foot traffic and light concentrated loads associated with installation and maintenance and the effects of minor structural movement while remaining weathertight.

3.3 Resistance to root penetration

3.3.1 Results of resistance to root penetration tests are given in Table 5.

Table 5 Resistance to root penetration tests

Product assessed	Assessment method	Requirement	Result
Derbigum BluRoof Membrane (AR)	Resistance to root penetration to BS EN 13948 : 2007	No root penetration after 2 years	Pass

3.3.2 On the basis of data assessed, Derbigum BluRoof Membrane (AR) will resist penetration by plant roots and remain weathertight.

3.3.3 Derbigum BluRoof Membrane (AR) can be used as a layer in a waterproofing system in green roof specifications acting as the root protection layer.

4 Safety and accessibility in use

Not applicable.

5 Protection against noise

Not applicable.

6 Energy economy and heat retention

Not applicable.

7 Sustainable use of natural resources

The product is made from APP polymer-modified bitumen and glass fibre/polyester reinforcement, which can be recycled.

8 Durability

8.1 The potential mechanisms for degradation and the known performance characteristics of the materials in the product were assessed.

8.2 Specific test data were assessed as given in Table 6.

Table 6 Durability tests

Product assessed	Assessment method	Requirement	Result
4 mm Derbigum BluRoof Membrane	Dimensional stability (free shrinkage) to BS EN 1107-1 : 2000 longitudinal direction	≤ 0.3%	Pass
	Flexibility at low temperature to BS EN 1109 : 2013 control	≤ -5°C	Pass
	Flexibility at low temperature to BS EN 1109 : 2013 heat aged for 28 days at 80°C	≤ 0 °C	Pass
	Flow resistance at elevated temperature to BS EN 1110 : 2010 control	≥ 120°C	Pass
	Flow resistance at elevated temperature to BS EN 1110 : 2010 heat aged for 6 months at 70°C	≥ 110°C	Pass
	Peel resistance of joints to BS EN 12316-1 : 2000 heat aged for 28 days at 80°C longitudinal direction	Change of ≤ 20% on initial	Pass
	Peel resistance of joints to BS EN 12316-1 : 2000 heat aged for 28 days at 80°C transverse direction	Change of ≤ 20% on initial	Pass
	Shear resistance of joints to BS EN 12317-1 : 2000 heat aged for 28 days at 80°C longitudinal direction	Change of ≤ 20% on initial	Pass
	Shear resistance of joints to BS EN 12317-1 : 2000 heat aged for 28 days at 80°C transverse direction	Change of ≤ 20% on initial	Pass

8.3 Existing sites were visited to assess the durability of the product.

8.4 Service life

8.4.1 Under normal service conditions, the product will have a life of at least 50 years provided it is designed, installed and maintained in accordance with this Certificate and the Certificate holder's instructions.

8.4.2 In situations where additional plant or machinery (eg PV/solar panels, satellite dishes, air handling equipment etc) is installed, or the roof is temporarily used as a platform for other works, the waterproof integrity of the roof may be compromised, and the Certificate holder must be consulted, but such advice is outside the scope of this Certificate.

PROCESS ASSESSMENT

Information provided by the Certificate holder was assessed for the following factors:

9 Design, installation, workmanship and maintenance

9.1 Design

9.1.1 The design process was assessed by the BBA and the following requirements apply in order to meet the performance assessed in this Certificate:

9.1.2 Decks to which the product is to be applied must comply with the relevant requirements of BS 6229 : 2018, BS 8217 : 2005 and, where appropriate, *NHBC Standards 2023*, Chapter 7.1.

9.1.3 Structural decks to which the product is to be applied must be suitable to transmit the dead and imposed loads experienced in service. Allowance must be made for loading deflections to ensure that the free drainage of water is maintained.

9.1.4 Imposed loads, dead loading and wind loads must be calculated by a suitably experienced and competent individual in accordance with the principles of BS EN 1991-1-1 : 2002, BS EN 1991-1-3 : 2003 and BS EN 1991-1-4 : 2005, and their UK National Annexes.

9.1.5 The drainage systems for zero-fall roofs and green roofs must be correctly designed, and the following points must be addressed:

- provision made for access for maintenance purposes
- for zero-fall roofs, it is particularly important to identify the correct drainage points, to ensure that drainage is sufficient and effective in accordance with the relevant clauses of BS 6229 : 2018
- dead loads for green roofs can increase if the drains become partially or completely blocked causing waterlogging of the drainage layer.

9.1.6 For green roofs, invasive non-native alien plant species as defined by UK Government guidance must not be used.

9.1.7 Insulation materials to be used in conjunction with the product must be in accordance with the Certificate holder's instructions and be either:

- as described in the relevant clauses of BS 6229 : 2018, or
- the subject of a current BBA Certificate and be used in accordance with, and within the limitations of, that Certificate.

9.2 Installation

9.2.1 Installation instructions provided by the Certificate holder were assessed and judged to be appropriate and adequate.

9.2.2 Installation must be carried out in accordance with this Certificate, the Certificate holder's instructions and the relevant clauses of BS 6229 : 2018, BS 8000-0 : 2014, BS 8000-4 : 1989 and BS 8217 : 2005. A summary of instructions and guidance are provided in Annex A of this Certificate.

9.2.3 Deck surfaces must be dry, clean and free from sharp projections such as nail heads and concrete nibs.

9.2.4 The membrane is laid in conditions normal to roofing work and must not be laid in rain, snow or heavy fog. If the temperature is below 5°C, suitable precautions must be taken against the formation of condensation on the substrate.

9.2.5 The waterproofing layer must always be installed with staggered overlaps and in such a manner that no counter-seams in the direction of outlets are made.

9.2.6 Detailing must be formed in accordance with the Certificate holder's instructions.

9.2.7 Waterproof upstand details must take into account the additional depth of the void formers and surfacing to achieve sufficient height above the finished roof level.

9.2.8 On completion of the roof, void formers must be installed over the waterproofing to the specified depth followed by the drainage layer and specified top layer, such as precast concrete paving flags.

9.2.9 In renovation of existing roofs, blisters must be opened and flattened or removed, and cracks repaired before installation of the top layer.

9.2.10 When used on roofs with limited access, the membranes do not require further protection.

9.2.11 All Derbigum BluRoof Membrane installations must be independently leak tested by a recognised leak test provider, prior to the installation of the void formers and surfacings.

9.2.12 The NHBC requires that the product, once installed, is inspected in accordance with *NHBC Standards 2023*, Chapter 7.1, Clause 7.1.11, including the use of an appropriate integrity test, where required. Any damage to the product assessed in this Certificate must be repaired in accordance with section 9.4 of this Certificate and reinspected, in order to maintain product performance.

9.3 Workmanship

Practicability of installation was assessed by the BBA on the basis of the Certificate holder's information, the relevant clauses of BS 8217 : 2005 and a site visit to witness an installation in progress. To achieve the performance described in this Certificate, installation of the products must be carried out by installers approved by the Certificate holder.

9.4 Maintenance and repair

9.4.1 Ongoing satisfactory performance of the product in use requires that it is suitably maintained. The guidance provided by the Certificate holder was assessed by the BBA and found to be appropriate and adequate.

9.4.2 The following requirements apply in order to meet the performance assessed in this Certificate:

9.4.2.1 The product must be the subject of six-monthly inspections and maintenance in accordance with the recommendations in BS 6229 : 2018, Chapter 7, and the Certificate holder's own maintenance requirements, where relevant, to ensure continued satisfactory performance.

9.4.2.2 Green roofs must be the subject of regular inspections, particularly in autumn after leaf fall and in spring, to ensure unwanted vegetation and other debris are cleared from the roof and drainage outlets (see section 9.1).

9.4.2.3 For green roof finishes, in order to protect the roof waterproofing, invasive plant species must be eliminated through maintenance. In particular, the following species must be removed/excluded:

- invasive weeds including Buddleia
- plants and grasses with aggressive rhizomes such as Bamboo
- self-setting woody weeds such as Sycamore and Ash seedlings should be removed at early germination stage
- other woody plants which spread aggressively including Rhododendron.

9.4.3 The Green Roof Organisation (GRO) can provide guidance on species not included in section 9.4.2.3, but such advice is outside of the scope of this Certificate.

9.4.4 The use of chemical fertiliser (inorganic material of wholly or partially synthetic origin used to sustain plant growth) must be checked for compatibility with the waterproofing layer. The Certificate holder can advise on the suitability of a particular product, but such advice is outside of the scope of this Certificate.

9.4.5 In the event of damage, the membrane can be effectively repaired by cleaning the area around the damaged area and applying a patch of the membrane as described in the Certificate holder's instructions (see section A.6).

10 Manufacture

10.1 The production processes for the product have been assessed, and provide assurance that the quality controls are satisfactory according to the following factors:

10.1.1 The manufacturer has provided documented information on the materials, processes, testing and control factors.

10.1.2 The quality control operated over batches of incoming materials has been assessed and deemed appropriate and adequate.

10.1.3 The quality control procedures and product testing to be undertaken have been assessed and deemed appropriate and adequate.

10.1.4 The process for management of non-conformities has been assessed and deemed appropriate and adequate.

10.1.5 An audit of each production location was undertaken, and it was confirmed that the production process was in accordance with the documented process, and that equipment has been properly tested and calibrated.

† 10.2 The BBA has undertaken to review the above measures on a regular basis through a surveillance process, to verify that the specifications and quality control operated by the manufacturer are being maintained.

11 Delivery and site handling

11.1 The Certificate holder stated that:

11.1.1 The membrane is delivered to site in rolls labelled with the product name, production code, Certificate holder's address, Declaration of Performance information and the BBA logo including the number of this Certificate. The rolls are packed on pallets and shrink-wrapped in polythene.

11.1.2 The primer is delivered to site in metal drums labelled with the product name and product code. The drums are packed on pallets and shrink-wrapped in polythene.

11.2 Delivery and site handling must be performed in accordance with the Certificate holder's instructions and this Certificate, including:

11.2.1 Rolls of membranes must be stored upright, on a clean and level surface, away from excessive heat and kept under cover.

11.2.2 Metal drums of primer must be stored upright and out of direct sunlight.

Supporting information in this Annex is relevant to the product but has not formed part of the material assessed for the Certificate.

Construction (Design and Management) Regulations 2015

Construction (Design and Management) Regulations (Northern Ireland) 2016

Information in this Certificate may assist the client, designer (including Principal Designer) and contractor (including Principal Contractor) to address their obligations under these Regulations.

CLP Regulations

The Certificate holder has taken the responsibility of classifying and labelling the product under the *GB CLP Regulation* and *CLP Regulation (EC) No 1272/2008 - classification, labelling and packaging of substances and mixtures*. Users must refer to the relevant Safety Data Sheet(s).

CE marking

The Certificate holder has taken the responsibility of CE marking the product, in accordance with harmonised European Standards EN 13707 : 2013.

Management Systems Certification for production

The management system of the manufacturer has been assessed and registered as meeting the requirements of BS EN ISO 9001 : 2015 and BS EN ISO 14001 : 2015 by Bureau Veritas (Certificates BE012154 and BE013232 respectively).

Additional information on installation

General

A.1 Growing medium or other bulk material should not be stored on one area of the roof prior to installation, to ensure that localised overloading does not occur.

A.2 Recommendations for the design of green roofs specifications are available within the latest edition of *The GRO Green Roof Code – Green Roof Code of Best Practice for the UK*.

Procedure

Derbigum Torch System

A.3 Where required, the substrate should be primed using Derbiprimer S.

A.4 Bonding is achieved by melting the lower surface of the membrane by torching, and pressing down.

A.5 When used as a cap sheet in a multi-layer system, the membrane is always bonded to an underlay complying with BS 8747 : 2007 or high-performance roofing felts. Polyester-reinforced felts to BS 8747 : 2007 should not be used.

A.6 All laps should be pressure-rolled using a 15 kg long-handled lap roller. All overlaps (side and end) must be a minimum of 150 mm and pressure-rolled.

Maintenance

A.7 Additional guidance on maintenance for green roofs and roof gardens is available within the latest edition of *The GRO Green Roof Code – Green Roof Code of Best Practice for the UK*.

Bibliography

- BS 6229 : 2018 *Flat roofs with continuously supported flexible waterproof coverings — Code of practice*
- 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 8217 : 2005 *Reinforced bitumen membranes for roofing — Code of practice*
- BS 8747 : 2007 *Reinforced bitumen membrane (RBMs) for roofing — Guide to selection and specification*
- BS EN 1107-1 : 2000 *Flexible sheets for waterproofing — Determination of dimensional stability — Part 1: Bitumen sheets for roof waterproofing*
- BS EN 1109 : 2013 *Flexible sheets for waterproofing — Bitumen sheets for roof waterproofing — Determination of flexibility at low temperature*
- BS EN 1110 : 2010 *Flexible sheets for waterproofing — Bitumen sheets for roof waterproofing — Determination of flow resistance at elevated temperature*
- BS EN 1928 : 2000 *Flexible sheets for waterproofing — Bitumen, plastic and rubber sheets for roof waterproofing — Determination of watertightness*
- BS EN 1991-1-1 : 2002 *Eurocode 1 — Actions on structures — General actions — Densities, self-weight, imposed loads for buildings*
- NA to BS EN 1991-1-1 : 2002 UK National Annex to *Eurocode 1 — Actions on structures — General actions — Densities, self-weight, imposed loads for buildings*
- BS EN 1991-1-3 : 2003 + A1 : 2015 *Eurocode 1 — Actions on structures — General actions — Snow loads*
- NA + A2 : 18 to BS EN 1991-1-3 : 2003 + A1 : 2015 UK National Annex to *Eurocode 1 — Actions on structures — General actions — Snow loads*
- BS EN 1991-1-4 : 2005 + A1 : 2010 *Eurocode 1 — Actions on structures — General actions — Wind actions*
- NA to BS EN 1991-1-4 : 2005 + A1 : 2010 UK National Annex to *Eurocode 1 — Actions on structures — General actions — Wind actions*
- BS EN 12310-1 : 2000 *Flexible sheets for waterproofing — Determination of resistance to tearing (nail shank) — Part 1: Bitumen sheets for roof waterproofing*
- BS EN 12311-1 : 2000 *Flexible sheets for waterproofing — Determination of tensile properties — Part 1: Bitumen sheets for roof waterproofing*
- BS EN 12316-1 : 2000 *Flexible sheets for waterproofing — Determination of peel resistance of joints — Part 1: Bitumen sheets for roof waterproofing*
- BS EN 12317-1 : 2000 *Flexible sheets for waterproofing — Determination of shear resistance of joints — Part 1: Bitumen sheets for roof waterproofing*
- BS EN 12691 : 2018 *Flexible sheets for waterproofing — Bitumen, plastic and rubber sheets for roof waterproofing — Determination of resistance to impact*
- BS EN 12730 : 2001 *Flexible sheets for waterproofing — Bitumen, plastic and rubber sheets for roof waterproofing — Determination of resistance to static loading*
- BS EN 13501-5 : 2016 *Fire classification of construction products and building elements — Classification using data from external fire exposure to roofs tests*
- BS EN 13948:2007 *Flexible sheets for waterproofing — Bitumen, plastic and rubber sheets for roof waterproofing — Determination of resistance to root penetration*
- BS EN ISO 9001 : 2015 *Quality management systems — Requirements*
- BS EN ISO 14001 : 2015 *Environmental management systems — Specification with guidance for use*
- DD CEN/TS 1187 : 2012 *Test methods for external fire exposure to roofs*
- EN 13707 : 2013 *Flexible sheets for waterproofing — Reinforced bitumen sheets for roof waterproofing — Definitions and characteristics*
- MOAT 64 : 2001 *UEAtc Technical Guide for the Assessment of Roof Waterproofing Systems made of Reinforced APP or SBS Polymer Modified Bitumen Sheets*

Conditions of Certificate

Conditions

1 This Certificate:

- relates only to the product that is named and described on the front page
- is issued only to the company, firm, organisation or person named on the front page – no other company, firm, organisation or person may hold or claim that this Certificate has been issued to them
- is valid only within the UK
- has to be read, considered and used as a whole document – it may be misleading and will be incomplete to be selective
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- is subject to English Law.

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3 This Certificate will be displayed on the BBA website, and the Certificate Holder is entitled to use the Certificate and Certificate logo, provided that the product and its manufacture and/or fabrication, including all related and relevant parts and processes thereof:

- are maintained at or above the levels which have been assessed and found to be satisfactory by the BBA
- continue to be checked as and when deemed appropriate by the BBA under arrangements that it will determine
- are reviewed by the BBA as and when it considers appropriate.

4 The BBA has used due skill, care and diligence in preparing this Certificate, but no warranty is provided.

5 In issuing this Certificate the BBA is not responsible and is excluded from any liability to any company, firm, organisation or person, for any matters arising directly or indirectly from:

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- the right of the Certificate holder to manufacture, supply, install, maintain or market the product
- actual installations of the product, including their nature, design, methods, performance, workmanship and maintenance
- any works and constructions in which the product is installed, including their nature, design, methods, performance, workmanship and maintenance
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- any claims by the manufacturer relating to UKCA marking and CE marking.

6 Any information relating to the manufacture, supply, installation, use, maintenance and removal of this product which is contained or referred to in this Certificate is the minimum required to be met when the product is manufactured, supplied, installed, used, maintained and removed. It does not purport in any way to restate the requirements of the Health and Safety at Work etc. Act 1974, or of any other statutory, common law or other duty which may exist at the date of issue or reissue of this Certificate; nor is conformity with such information to be taken as satisfying the requirements of the 1974 Act or of any statutory, common law or other duty of care.

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