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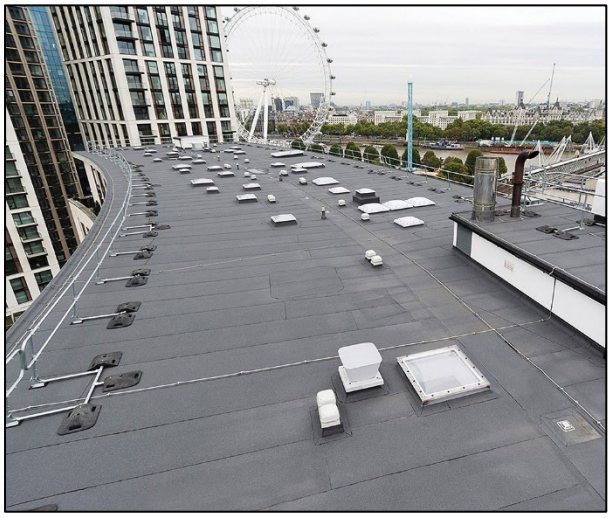
Agrément Certificate
86/1593
Product Sheet 1 Issue 6

DERBIGUM ROOFING MEMBRANES

DERBIGUM BLACK AND MINERAL

This Agrément Certificate Product Sheet(1) relates to Derbigum Black and Mineral, a range of glass and polyester reinforced, atactic polypropylene (APP) polymer-modified bitumen membranes, for use as fully or partially bonded waterproofing on pitched, flat or protected zero-fall roofs, green roofs and roof gardens and podiums with limited access or pedestrian access and with suitable protection.

(1) Hereinafter referred to as '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 products described herein. These products have been assessed by the BBA as being fit for their intended use provided they are installed, used and maintained as set out in this Certificate.

On behalf of the British Board of Agrément

Date of Sixth issue: 13 September 2023

Originally certified on 17 March 1986

Hardy Giesler
Chief Executive Officer

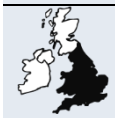
Certificate amended on 28 April 2026 to add Irish Building Regulations, update section 2.2, reaction to fire and add the NHBC statement

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 Black and Mineral, 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(1)**	**External fire spread**
Comment:		The products are restricted by this Requirement in some circumstances. See section 2 of this Certificate.
Requirement:	**B4(2)**	**External fire spread**
Comment:		On a suitable substructure, the products may contribute to satisfying this Requirement. See section 2 of this Certificate.
Requirement:	**C2(b)**	**Resistance to moisture**
Comment:		The products, including joints, will enable a roof to satisfy this Requirement. See section 3 of this Certificate.
Regulation:	**7(1)**	**Materials and workmanship**
Comment:		The products are 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 products satisfies the requirements of this Regulation. See sections 8 and 9 of this Certificate.
Regulation:	**9**	**Building standards – construction**
Standard:	2.6	Spread to neighbouring buildings
Standard	2.7	Spread on external walls
Comment:		The products are restricted under clauses 2.6.4$^{(1)(2)}$ and 2.7.1$^{(1)(2)}$ of these Standards in some circumstances. See section 2 of this Certificate.
Standard:	2.8	Spread from neighbouring buildings
Comment:		On a suitable substructure, the products 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 products, including joints, will enable a roof to satisfy the requirements of this Standard, with reference to clauses 3.10.1$^{(1)(2)}$ and 3.10.7$^{(1)(2)}$. See section 3 of this Certificate.
Standard:	7.1(a)	Statement of sustainability
Comment:		The products 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 products 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) (iii)(b)(i)**	**Fitness of materials and workmanship**
Comment:		The products are acceptable. See sections 8 and 9 of this Certificate.
Regulation:	**28(b)**	**Resistance to moisture and weather**
Comment:		The products, including joints, will enable a roof to satisfy the requirements of this Regulation. See section 3 of this Certificate.
Regulation:	**36(a)**	**External fire spread**
Comment:		The products are restricted by this Regulation in some circumstances. See section 2 of this Certificate.
Regulation:	**36(b)**	**External fire spread**
Comment:		On a suitable substructure, the use of the products may contribute to satisfying this Regulation. See section 2 of this Certificate.

The Building Regulations (Ireland) 1997 and subsequent revisions

Requirement:	**B4(b)**	**External fire spread**
Comment:		The products are restricted by this Requirement in some circumstances. See section 2 of this Certificate.
Requirement:	**B9**	**External fire spread**
Comment:		The products may be restricted by this Requirement, in some circumstances. See section 2 of this Certificate.
Requirement:	**C4**	**Resistance to weather and ground moisture**
Comment:		The products, including joints, will enable a roof to satisfy this Requirement. See section 3 of this Certificate.
Requirement:	**D1**	**Materials and workmanship**
Comment:		The products are acceptable. See sections 8 and 9 of this Certificate.

Additional Information

NHBC Standards 2023

In the opinion of the BBA, Derbigum Black and Mineral, 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 products, when installed and used in accordance with this Certificate, can satisfy or contribute to satisfying the relevant requirements in relation to *NHBC Standards for Conversions and Renovations*, taking account of other relevant guidance within the Chapter and the suitability of the substrate to receive the products.

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

The opinion of the BBA does not amount to any endorsement or approval by NHBC and does not in any way guarantee that NHBC will approve such product / system as compliant with the NHBC Technical Requirements and Standards.

Fulfilment of Requirements

The BBA has judged Derbigum Black and Mineral to be satisfactory for use as fully or partially bonded waterproofing on pitched, flat or protected zero-fall roofs, green roofs and roof gardens and podiums with limited access or pedestrian access and with suitable protection.

ASSESSMENT

Product description and intended use

The Certificate holder provided the following description for the products under assessment. Derbigum Black and Mineral consist of:

- Derbigum Black(1) — 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})
- Derbigum Mineral(1) — an APP polymer-modified bitumen torch-applied cap sheet reinforced with a mixed composite glass/polyester of 170 g·m^{-2}. Available in two finishes: slated and granules
- Derbigum Anti-Root — a version of Derbigum Black for use in green roofs and roof gardens.

(1) Contain materials obtained from recycled old bituminous waterproofing membranes.

The products have the nominal characteristics given in Table 1.

Table 1 Nominal characteristics of Derbigum Black and Mineral

Characteristic (unit)	Derbigum Black/Anti-Root	Derbigum Mineral
Thickness (mm)	4.0	4.0
Width (m)	1.1	1.1
Roll length (m)	8	7.27
Roll weight (kg)	37	44(1), 48(2)
Mass per unit area (kg·m^{-2})	4.2	5.5(1), 6.0(2)

(1) Slated finish.
(2) Granular finish.

Ancillary Items

The following ancillary items must be used where specified with the products, and have been assessed with the products:

- Derbiprimer S — a cold bituminous impregnation primer for use in preparation of the substrate prior to the application of the products
- Derbibond NT — a bituminous cold-applied adhesive for use in the Derbigum Rapido System.

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

- Monoscreed — a curing screed
- V-Therm VIP — a vacuum insulated panel
- Harmer AV — a range of metal roof outlets
- Alumasc Multi-fix Dual Density Mineral Wool — thermal insulation
- Alumasc C-Glass — foamed glass thermal insulation
- 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)
- Blackdown Green Roofs — an extensive, biodiverse and intensive green roof system
- 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 products are intended for use in the following situations:

- a cap sheet in a multi-layer system based on traditional reinforced bitumen membranes on flat, pitched or protected zero-fall roofs with limited access
- a cap sheet in a single-layer system based on cold-applied reinforced bitumen membranes on flat, pitched or protected zero-fall roofs with limited access
- a fully bonded repair medium for existing traditional reinforced bitumen membranes or mastic asphalt roofs (ie as a complete overlay)
- in green roof and roof garden specifications (Derbigum Anti-Root).

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
- pedestrian access roof — a roof not subjected to vehicular traffic
- zero-fall roof — a roof having a finished fall which can vary between 0° and 1:80
- flat roof — a roof having a minimum finished fall of 1:80
- pitched roof — a roof having a fall in excess of 1:6
- 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 products were 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 and the Republic of Ireland unless otherwise stated.

1 Mechanical resistance and stability

Not applicable.

2 Safety in case of fire

Data were assessed for the following characteristics.

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 and PD CEN/TS 16459 : 2019, the systems given in Table 2 of this Certificate achieved B_{ROOF}(t4) for slopes below 10°.

Table 2 External fire spread tests

	System 1[1]	System 2[2]	System 3[3]	System 4[4]	System 5[5]
Substrate	16 mm wood particle board	16 mm wood particle board	≥ 16 mm wood particle board	≥ 16 mm wood particle board	18 mm plywood
Primer	Derbiprimer S	Derbiprimer S	Ethylmethylketone self-adhesive primer[6]	Ethylmethylketone self-adhesive primer[6]	SA Primer[6]
AVCL	0.25 mm Derbicoat Alu Selfix SKT[6]	0.25 mm Derbicoat Alu Selfix SKT[6]	Any bituminous vapour barrier according to EN 13970 : 2004[6]	Any bituminous vapour barrier according to EN 13970 : 2004[6]	2.3 mm Euroroof Self-Adhesive VCL[6]
Adhesive	Derbitech FA[6]	Derbitech FA[6]	PU adhesive[6]	PU adhesive[6]	Alumasc PU Insulation Adhesive[6]
Insulation	120 mm Alumasc BGT PIR[6]	130 mm Alumasc BGT PIR[6]	≥ 30 mm PIR insulation with mineral glass fleece (single or double layer)[6]	≥ 30 mm PIR insulation with mineral glass fleece (single or double layer)[6]	150 mm Mineral wool insulation with glass tissue face[6]
Underlay	2.5 mm Derbicoat NT[6]	2.5 mm Derbicoat NT[6]	2 mm Euroroof Self-Adhesive Underlay[6]	3 mm Hi-Ten Universal[6]	3 mm Hi-Ten Universal[6]
Cap sheet	4 mm Derbigum Black	4 mm Derbigum Mineral	4 mm Derbigum Mineral	4 mm Derbigum Mineral	4 mm Derbigum Mineral

(1) Classification report 18601C, issued by Warringtonfire Gent. A copy of the report is available from the Certificate holder.
(2) Classification report 18906B, issued by Warringtonfire Gent. A copy of the report is available from the Certificate holder.
(3) Classification report 20849D and extended application report 20849C, issued by Warringtonfire Gent. A copy of the report is available from the Certificate holder.
(4) Classification report 20849J and extended application report 20849H, issued by Warringtonfire Gent. A copy of the report is available from the Certificate holder.
(5) Classification report Q100331-1008, issued by BRE Global. A copy of the report is available from the Certificate holder.
(6) These components are outside the scope of this Certificate.

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

2.1.3 A roof incorporating the products will also be unrestricted under the national Building Regulations with respect to a relevant 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
- a roof garden covered with a drainage layer of gravel 100 mm thick and a growing medium layer 300 mm thick (only Derbigum Anti-Root)
- irrigated roof gardens and green roofs.

2.1.4 In Wales and Northern Ireland, when used on flat roofs using a substrate designated in the supporting documents 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, plants used in a roof garden 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.

2.2 Reaction to fire

2.2.1 Results of reaction to fire tests are given in Table 3.

Table 3 Reaction to fire tests

Product assessed	Assessment method	Requirement	Result
Derbigum Black[(1)]	Reaction to fire	Declared value	Pass
Derbigum Mineral[(2)]	to BS EN 13501-1 : 2018	Class E	Pass

(1) Classification report 17400D, issued by Warringtonfire Gent. A copy of the report is available from the Certificate holder on request.
(2) Classification report 17401C, issued by Warringtonfire Gent. A copy of the report is available from the Certificate holder on request.

2.2.2 On the basis of data assessed, the products will be restricted in use under the documents supporting the national Building Regulations in some cases.

2.2.3 In England and Wales, the products, when used in pitches greater than 70°, excluding upstands, must not be used less than 1 m from a relevant boundary, or on residential buildings more than 11 m in height or on other buildings more than 18 m in height. Restrictions apply on assembly and recreation buildings. These constructions must also be included in calculations of unprotected area.

2.2.4 In Northern Ireland, the products, when used in pitches greater than 70°, excluding upstands, must not be used less than 1 m from a boundary, or on buildings more than 18 m in height or in some cases, on assembly and recreation buildings. These constructions must also be included in calculations of unprotected area.

2.2.5 In Scotland, the use of the products is unrestricted with respect to building height and proximity to a relevant boundary. However, restrictions on the overall construction may apply, depending on the reaction to fire classification achieved by the build-up, which must be established on a case-by-case basis.

2.2.6 In the Republic of Ireland, the products, when used on dwelling houses with pitches greater than 70°, excluding upstands, must not be used less than 1 m from a relevant boundary or 15m or more in height. These constructions must also be included in calculations of unprotected area.

2.2.7 In the Republic of Ireland, the products must not be used on buildings other than dwelling houses with roof pitches greater than 70°, excluding upstands.

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 4.

Table 4 Weathertightness tests

Product assessed	Assessment method	Requirement	Result
4 mm Derbigum Black 4 mm Derbigum Mineral	Watertightness to BS EN 1928 : 2000	No leakage after 24-hour exposure at 10 kPa	Pass Pass
4 mm Derbigum Black 4 mm Derbigum Mineral	Peel resistance of joints to BS EN 12316-1 : 2000 longitudinal direction	≥ 40 N·(50 mm)$^{-1}$ ≥ 40 N·(50 mm)$^{-1}$	Pass Pass
4 mm Derbigum Black 4 mm Derbigum Mineral	Peel resistance of joints to BS EN 12316-1 : 2000 transverse direction	≥ 40 N·(50 mm)$^{-1}$ ≥ 40 N·(50 mm)$^{-1}$	Pass Pass
4 mm Derbigum Black 4 mm Derbigum Mineral	Shear resistance of joints to BS EN 12317-1 : 2000 longitudinal direction	≥ 500 N·(50 mm)$^{-1}$ ≥ 500 N·(50 mm)$^{-1}$	Pass Pass
4 mm Derbigum Black 4 mm Derbigum Mineral	Shear resistance of joints to BS EN 12317-1 : 2000 transverse direction	≥ 500 N·(50 mm)$^{-1}$ ≥ 500 N·(50 mm)$^{-1}$	Pass 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 Black cap sheet	Resistance to wind uplift (pull-off under suction) to MOAT 64 : 2001	Maximum suction pressure not causing failure of the specimen	Pass at -7.0 kPa

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

3.1.2 On the basis of data assessed, Derbigum Black and Mineral, 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 products 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 5.

Table 5 Resistance to mechanical damage tests

Product assessed	Assessment method	Requirement	Result
	Resistance to static loading	Declared value	
4 mm Derbigum Black	to BS EN 12730 : 2015	≥ 20 kg	Pass
4 mm Derbigum Mineral	Method A (EPS substrate)	≥ 20 kg	Pass
	Resistance to static loading	Declared value	
4 mm Derbigum Black	to BS EN 12730 : 2015	≥ 20 kg	Pass
4 mm Derbigum Mineral	Method B (concrete substrate)	≥ 20 kg	Pass
	Resistance to impact	Declared value	
4 mm Derbigum Black	to BS EN 12691 : 2018	≥ 1250 mm	Pass
4 mm Derbigum Mineral	Method A (aluminium substrate)	≥ 1750 mm	Pass
	Resistance to impact	Declared value	
4 mm Derbigum Black	to BS EN 12691 : 2018	≥ 1250 mm	Pass
4 mm Derbigum Mineral	Method B (EPS substrate)	≥ 1750 mm	Pass
	Tensile strength	Declared value	
4 mm Derbigum Black	to BS EN 12311-1 : 2000	700 N·(50 mm)$^{-1}$ ± 20%	Pass
4 mm Derbigum Mineral	longitudinal direction	900 N·(50 mm)$^{-1}$ ± 20%	Pass
	Tensile strength	Declared value	
4 mm Derbigum Black	to BS EN 12311-1 : 2000	650 N·(50 mm)$^{-1}$ ± 20%	Pass
4 mm Derbigum Mineral	transverse direction	700 N·(50 mm)$^{-1}$ ± 20%	Pass
	Elongation at break	Declared value	
4 mm Derbigum Black	to BS EN 12311-1 : 2000	45% ± 15% absolute	Pass
4 mm Derbigum Mineral	longitudinal direction	40% ± 15% absolute	Pass
	Elongation at break	Declared value	
4 mm Derbigum Black	to BS EN 12311-1 : 2000	45% ± 15% absolute	Pass
4 mm Derbigum Mineral	transverse direction	40% ± 15% absolute	Pass
4 mm Derbigum Black	Nail tear	≥ 150 N	Pass
4 mm Derbigum Mineral	to BS EN 12310-1 : 2000	≥ 150 N	Pass
	longitudinal direction		
4 mm Derbigum Black	Nail tear	≥ 150 N	Pass
4 mm Derbigum Mineral	to BS EN 12310-1 : 2000	≥ 150 N	Pass
	transverse direction		

3.2.2 On the basis of data assessed, Derbigum Black and Mineral 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.

3.2.3 Where traffic in excess of the examples given in section 3.2.2 is envisaged, such as for maintenance of lift equipment, a walkway must be provided (for example, using concrete slabs supported on bearing pads or the Certificate holder's walkway sheets). Reasonable care must be taken to avoid puncture of the membranes by sharp objects or concentrated loads.

3.3 Resistance to root penetration

3.3.1 Results of resistance to root penetration tests are given in Table 6.

Table 6 Resistance to root penetration tests

Product assessed	Assessment method	Requirement	Result
4 mm Derbigum Anti-Root	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 Anti-Root will resist penetration by plant roots and remain weathertight.

3.3.3 Derbigum Anti-Root can be used as a layer in a waterproofing system in green roof and roof garden 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 products are made from APP polymer-modified bitumen and glass fibre/polyester reinforcement, and contain materials obtained from recycled bituminous waterproofing membranes.

8 Durability

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

8.2 Specific test data were assessed as given in Table 7.

Table 7 Durability tests

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

8.3 Existing sites were visited to assess the durability of Derbigum Black.

8.4 Service life

8.4.1 Under normal service conditions, the products will have a life of at least 50 years provided they are 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 products are 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 For design purposes of flat roofs, twice the minimum finished fall must be assumed, unless a detailed analysis of the roof is available, including overall and local deflection, and direction of falls.

9.1.4 Structural decks to which the products are 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.

9.1.5 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.

9.1.6 The drainage systems for zero-fall roofs, green roofs or roof gardens 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 and roof gardens can increase if the drains become partially or completely blocked causing waterlogging of the drainage layer.

9.1.7 The resistance to wind uplift for warm roofs will be dependent on the cohesive strength of the insulation and the method by which it is secured to the roof deck. This must be taken into account when selecting a suitable insulation material.

9.1.8 Insulation materials to be used in conjunction with the products 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.

9.1.9 The growing medium used in intensive planting must not be of a type that will be removed, or become localised, owing to wind scour on the site.

9.1.10 It must be recognised that the type of plants used could significantly affect the wind loads experienced in service.

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

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 The products can be installed using two different methods of installation:

- the Derbigum Torch System — fully bonded by torching
- the Derbigum Rapido System — fully bonded with Derbibond NT in a single layer, with laps torch-bonded and two-layer details.

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

9.2.5 The membranes are 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.

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

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

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

9.2.9 If the roof is likely to be subjected to uncontrolled pedestrian access, the substructure must satisfy the requirements of BS 8217 : 2005, and to prevent damage to the roof covering one of the appropriate surface finishes referred to in clauses 6.12 of that Standard must be used.

9.2.10 At falls in excess of 5° (1:11) precautions against slippage, and requirements for mechanical fixing as required by BS 8217 : 2005, must be observed.

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

9.2.12 The NHBC requires that the products, once installed, be 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 products 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 products in use requires that they are 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 products 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 and roof gardens 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 membranes 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 sections A.6 and A.8).

10 Manufacture

10.1 The production processes for the products 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 membranes are 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 and the adhesive are 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 handing 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 and adhesive must be stored upright and out of direct sunlight.

ANNEX A – SUPPLEMENTARY INFORMATION †

Supporting information in this Annex is relevant to the products 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 products 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 products, in accordance with harmonised European Standard 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 and roof garden 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 membranes are 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 Side laps should be a minimum overlap of 100 mm and end laps a minimum overlap of 150 mm. All laps should be pressure-rolled using a 15 kg long-handled lap roller. On zero-fall roofs, all overlaps (side and end) must be a minimum of 150 mm and also pressure-rolled.

Derbigum Rapido System

A.7 Derbibond NT is applied to the insulation substrate at a rate of 1 kg·m^{-2} (unless otherwise indicated by the specification). The membrane is unrolled into the freshly applied mastic.
A.8 Lap joints are sealed by torching, and should be a minimum overlap of 100 mm at sides and 150 mm at ends. Care should be taken to avoid getting Derbibond NT on the lap area. All laps should be pressure-rolled using a 15 kg long-handled lap roller. On zero-fall roofs, all overlaps (side and end) must be a minimum of 150 mm and also pressure-rolled.

Maintenance

A.9 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 13501-1 : 2018 *Fire classification of construction products and building elements — Classification using data from reaction to fire tests*
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*

EN 13970 : 2004 *Flexible sheets for waterproofing — Bitumen water vapour control layers — 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*

PD CEN/TS 16459 : 2019 *External fire exposure of roofs and roof coverings — Extended application of test results from CEN/TS 1187*

Conditions

1 This Certificate:

- relates only to the products that are 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
- is copyright of the BBA
- is subject to English Law.

2 Publications, documents, specifications, legislation, regulations, standards and the like referenced in this Certificate are those that were current and/or deemed relevant by the BBA at the date of issue or reissue of this Certificate.

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 products and their 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:

- the presence or absence of any patent, intellectual property or similar rights subsisting in the products or any other product
- the right of the Certificate holder to manufacture, supply, install, maintain or market the products
- actual installations of the products, including their nature, design, methods, performance, workmanship and maintenance
- any works and constructions in which the products are installed, including their nature, design, methods, performance, workmanship and maintenance
- any loss or damage, including personal injury, howsoever caused by the products, including their manufacture, supply, installation, use, maintenance and removal
- 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 these products which is contained or referred to in this Certificate is the minimum required to be met when the products are 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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