

Proteus Waterproofing Limited

21a Sirdar Road
Brook Road Industrial Estate
Rayleigh
Essex SS6 7XF

Tel: +44 (0)1268 777871

e-mail: enquiries@proteuswaterproofing.co.uk

website: www.proteuswaterproofing.co.uk



Agrément Certificate

22/6186

Product Sheet 1

PROTEUS HOT MELT ROOF WATERPROOFING SYSTEMS

PROTEUS HOT MELT

This Agrément Certificate Product Sheet⁽¹⁾ relates to Proteus Hot Melt⁽²⁾, for use in inverted flat roofs (including those with zero falls), terraces, podiums, balconies, blue roofs, green roofs and roof gardens.

(1) Hereinafter referred to as 'Certificate'.

(2) Proteus Hot Melt is a registered trademark.

CERTIFICATION INCLUDES:

- factors relating to compliance with Building Regulations where applicable
- factors relating to additional non-regulatory information where applicable
- independently verified technical specification
- assessment criteria and technical investigations
- design considerations
- installation guidance
- regular surveillance of production †
- formal three-yearly review. †



KEY FACTORS ASSESSED

Weathertightness — the system will resist the passage of moisture into the interior of a building (see section 6).

Properties in relation to fire— the system, when used in a suitable specification, may enable a roof to be unrestricted under the national Building Regulations (see section 7).

Resistance to wind uplift — resistance to wind uplift is dependent on the top layers of the roofing specification (see section 8).

Resistance to mechanical damage — the system will accept, without damage, the limited foot traffic and loads associated with installation, maintenance, pedestrian traffic and minor structural movements occurring in service (see section 9).

Resistance to penetration by roots — the system, when used in combination with Proteus Hot Melt Anti-Root Plain Capsheet, will adequately resist plant root penetration (see section 10).

Durability — under normal service conditions and when fully protected, the system will provide a durable roof waterproofing for the service life of the roof in which it is incorporated (see section 12).

The BBA has awarded this Certificate to the company named above for the system described herein. This system 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 First issue: 22 November 2022

Hardy Giesler
Chief Executive Officer

This Certificate was amended on 22 May 2024 as part of a transition of The BBA Agrément Certificate scheme delivered under the BBA's ISO/IEC 17020 accreditation. This Certificate was issued originally under accreditation to ISO/IEC 17065. Sections marked with the symbol † are not issued under accreditation. Full conversion to the ISO/IEC 17020 format will take place at the next Certificate review. The BBA is a UKAS accredited Inspection Body (No.4345). Readers MUST check the validity of this Agrément Certificate by either referring to the BBA website or contacting the BBA directly. Any photographs are for illustrative purposes only, do not constitute advice and must not be relied upon.

British Board of Agrément

1st Floor Building 3
Croxley Park, Watford
Herts WD18 8YG

©2022

tel: 01923 665300
clientservices@bbacerts.co.uk
www.bbacerts.co.uk

Regulations

In the opinion of the BBA, Proteus Hot Melt, 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 presence of a UK map indicates that the subject is related to the Building Regulations in the region or regions of the UK depicted):



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

Requirement:	B4(1)	External fire spread
Comment:		Use of the system on balconies is restricted under this Regulation. See sections 7.5 and 7.6 of this Certificate.
Requirement:	B4(2)	External fire spread
Comment:		When used in suitably protected specifications, the system may enable a roof to be unrestricted under this Requirement. See sections 7.1, 7.2 (Wales only) and 7.3 of this Certificate.
Requirement:	C2(b)	Resistance to moisture
Comment:		The system will enable a roof to satisfy this Requirement. See section 6 of this Certificate.
Requirement:	7(1)	Materials and workmanship
Comment:		The system is acceptable. See section 12 and the <i>Installation</i> part of this Certificate.



The Building (Scotland) Regulations 2004 (as amended)

Regulation:	8(1)(2)	Fitness and durability of materials and workmanship
Comment:		The system can contribute to a construction satisfying this Regulation. See sections 11.1 and 12 and the <i>Installation</i> part of this Certificate.
Regulation:	8(3)	Fitness and durability of materials and workmanship
Comment:		The system is restricted under this Regulation. See sections 7.5 and 7.7 of this Certificate.
Regulation:	9	Building standards applicable to construction
Standard:	2.2	Separation
Standard:	2.7	Spread on external walls
Comment:		Use of the system on balconies is restricted under clauses 2.2.7 ⁽¹⁾ and 2.7.2 ⁽¹⁾⁽²⁾ of these Standards. See sections 7.5 and 7.7 of this Certificate.
Standard:	2.8	Spread from neighbouring buildings
Comment:		When used in suitably protected specifications, the use of the system may enable a roof to be unrestricted under clause 2.8.1 ⁽¹⁾⁽²⁾ of this Standard. See sections 7.1 and 7.3 of this Certificate.
Standard:	3.10	Precipitation
Comment:		The use of the system 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 6 of this Certificate.
Standard:	7.1(a)	Statement of sustainability
Comment:		The system 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 applicable to conversions
Comment:		Comments in relation to the system 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 system is acceptable. See section 12 and the <i>Installation</i> part of this Certificate.
Regulation:	28(b)	Resistance to moisture and weather
Comment:		The system will enable a roof to satisfy the requirements of this Regulation. See section 6 of this Certificate.
Regulation:	36(a)	External fire spread
Comment:		Use of the system on balconies is restricted under this Regulation. See section 7.5 and 7.7 of this Certificate.
Regulation:	36(b)	External fire spread
Comment:		When used with suitable surface protection, the use of the system may enable a roof to be unrestricted under this Regulation. See sections 7.1 to 7.3 of this 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.

See sections: 1 *Description* (1.3) and 3 *Delivery and site handling* (3.1, 3.5 and 3.6) of this Certificate.

Additional Information

NHBC Standards 2022

In the opinion of the BBA, Proteus Hot Melt, 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*.

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

CE marking

The manufacturer has taken the responsibility of CE marking the system in accordance with EN 13707 : 2013.

Technical Specification

1 Description

1.1 Proteus Hot Melt consists of a hot-applied modified bitumen compound, reinforced with Proteus Hot Melt Force, used in conjunction with a bitumen roofing capsheet.

1.2 The system comprises:

- Pro-Prime⁽¹⁾ Bitumen — a bitumen-based primer for use on porous substrates prior to the application of Proteus Hot Melt Compound

- Proteus Hot Melt Compound — a hot-applied, polymer-modified bitumen waterproofing compound
- Proteus Hot Melt Force — a glass fibre mesh reinforcement used as the main reinforcement and over hairline cracks (less than 1.5 mm wide) and concrete upstands on a flat concrete roof slab
- Proteus Hot Melt Sanded Capsheet⁽²⁾ — a modified bitumen protection membrane reinforced with polyester, which is rolled into molten Proteus Hot Melt Compound
- Proteus Hot Melt Anti-Root Plain Capsheet — an anti-root modified bitumen protection membrane reinforced with polyester, which is rolled into molten Proteus Hot Melt Compound.

(1) Pro-Prime is a registered trademark.

(2) Not to be used in green roof (extensive) and roof garden (intensive) specifications.

1.3 Proteus Hot Melt Sanded Capsheet and Proteus Hot Melt Anti-Root Plain Capsheet are manufactured to the nominal characteristics given in Table 1.

Table 1 Nominal characteristics

Characteristic (unit)	Proteus Hot Melt Sanded Capsheet	Proteus Hot Melt Anti-Root Plain Capsheet
Thickness (mm)	3.5	4.0
Roll width (m)	1	1
Roll length (m)	10	10
Mass per unit area (kg·m ⁻²)	4.0	4.5
Watertightness	pass	pass
Tensile strength (N per 50 mm ⁻¹)		
longitudinal	600	600
transverse	400	500
Elongation at break (%)		
longitudinal	35	35
transverse	35	35
Low temperature flexibility (°C)	≤ -20	≤ -10
Flow resistance (°C)	≥ 100	≥ 120
Dimensional stability (%)	≤ 0.3	≤ 0.3
Impact (mm) (soft substrate B)	>900	>900
Static loading (kg) (soft substrate A)	>15	>15
Surface finish		
lower	polypropylene fabric	polypropylene fabric
upper	sand	polypropylene fabric

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

- Proteus Pro-Living Protection Fleece – to protect all flat roof waterproofing types from fines being washed below the finish (paving slabs, pebbles, roof garden etc)
- Proteus Low-K Water Reducing Layer – a layer that is laid above the insulation in an inverted roof system.

2 Manufacture

2.1 Proteus Hot Melt Compound and Pro-Prime Bitumen are manufactured via a batch-blending process using conventional methods.

2.2 As part of the assessment and ongoing surveillance of product quality, the BBA has:

- agreed with the manufacturer the quality control procedures and product testing to be undertaken
- assessed and agreed the quality control operated over batches of incoming materials
- monitored the production process and verified that it is in accordance with the documented process
- evaluated the process for management of nonconformities
- checked that equipment has been properly tested and calibrated

- undertaken to carry out 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.

3 Delivery and site handling

3.1 The system components are available in the pack sizes detailed in Table 2.

Table 2 Pack Sizes

Product	Unit	Size	Quantity per Pallet
Pro-Prime Bitumen	Drum	20 Litres	48
Proteus Hot Melt Compound	Block	20 kg	50
Proteus Hot Melt Force	Roll	30 x 1 m	25
Proteus Hot Melt Sanded Capsheet	Roll	10 x 1 m	25
Proteus Hot Melt Anti-Root Plain Capsheet	Roll	10 x 1 m	20

3.2 Proteus Hot Melt Compound is delivered to site in blocks packaged in silicon-lined cardboard cartons with labels bearing the product name, weight, date of production, traceability number, address of the Certificate holder and the BBA logo incorporating the number of this Certificate. The material must be stored under cover and away from heat sources.

3.3 Proteus Hot Melt Compound is unaffected by the temperatures likely to occur during storage and should have an indefinite shelf-life when stored under normal conditions.

3.4 Rolls of capsheet should be stored upright on a clean, level surface and kept dry, away from excessive heat and under cover.

3.5 Pro-Prime Bitumen must be stored under cover and away from heat sources.

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

Assessment and Technical Investigations

The following is a summary of the assessment and technical investigations carried out on Proteus Hot Melt.

Design Considerations

4 General

4.1 Proteus Hot Melt is satisfactory for use as a waterproofing layer on flat roofs, including zero fall, with pedestrian and limited access on:

- inverted roof specifications using aggregate ballast and paving
- protected roof specifications, eg covered by pavers or other suitable protection
- green roof (extensive) with limited access and roof garden (intensive) specifications⁽¹⁾
- podiums, terraces and balconies
- blue roof specifications.

(1) The system is only approved in these specifications when Proteus Hot Melt Anti-Root Plain Capsheet is used as a capsheet.

4.2 Substrates to which the system is to be applied must comply with the relevant requirements of BS 6229 : 2018 and, where appropriate, *NHBC Standards 2022*, Chapter 7.1. The following substrates are suitable for use with the system:

- in-situ structural concrete
- precast concrete
- concrete block in vertical applications

- lightweight structural concrete (subject to the manufacturer's recommendations)
- new exterior grade plywood (to BS EN 636 : 2012, Clause 8), fixed in accordance with the relevant requirements of BS 6229 : 2018 and BS 8217 : 2005.

4.3 In-situ structural concrete with a density of less than $1850 \text{ kg}\cdot\text{m}^{-3}$ (owing to substrate friability) and lightweight insulating concrete are not acceptable substrates for application of the system.

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

- 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 wildflower species
- blue roof — a flat roof designed to allow controlled attenuation of rain fall during storm events as part of a Sustainable drainage system (SuDS) good practice policy⁽¹⁾. Guidance on the design of blue roofs is available in *NFRC Technical Guidance Note for the construction and design of Blue Roofs – Roofs and podiums with controlled temporary water attenuation*.

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

4.5 Limited access roofs are defined for the purpose of this Certificate as those subjected only to pedestrian traffic associated with the installation of the capsheet or for maintenance of the roof covering prior to encapsulation, cleaning of gutters etc. Where traffic in excess of this is envisaged, additional protection to the system must be provided. Pedestrian access roofs are defined for the purpose of this Certificate as those not subjected to vehicular traffic.

4.6 Flat roofs are defined for the purpose of this Certificate as those having a minimum finished fall of 1:80⁽¹⁾. For design purposes, twice the minimum finished fall should be assumed, unless a detailed analysis of the roof is available, including such features as overall and local deflection, direction of falls, etc.

(1) *NHBC Standards 2022* require a minimum fall of 1:60 for green roofs and roof gardens.

4.7 Pitched roofs are defined for the purpose of this Certificate as those having a fall greater than 1:6.

4.8 Zero fall roofs are defined for the purpose of this Certificate as those having a finished fall which can vary between 0° and 1:80⁽¹⁾. Reference should also be made to the appropriate clauses in the Liquid Roofing and Waterproofing Association (LWRA) Note 7 – *Specifier Guidance for Flat Roofs*.

(1) *NHBC Standards 2022* require a minimum fall of 1:60 for green roofs and roof gardens.

4.9 Terraces and balconies to which the system is to be applied must be designed in accordance with BS 8579 : 2020.

4.10 The structural decks to which the system is to be applied must be suitable to transmit the dead and imposed loads experienced in service.

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

4.12 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*.

4.13 The drainage system for inverted roofs, zero fall roofs, green roofs and roof gardens must be correctly designed, and the following points should 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
- dead loads for green roof and roof gardens can increase if the drains become partially or completely blocked causing waterlogging of the drainage layer

- additional guidance for inverted roof specifications is given in BBA Information Bulletin No 4 *Inverted roofs – Drainage and U value corrections*.

4.14 Insulation systems or materials used in conjunction with the system must be:

- as described in the relevant clauses for inverted roofs in BS 8217 : 2005 and approved by the Certificate holder, or
- the subject of a current BBA Certificate for inverted roofs and used in accordance with, and within the limitations of, that Certificate, and approved by the Certificate holder.

4.15 The NHBC requires that the roof membranes, once installed, are inspected in accordance with *NHBC Standards 2022*, Chapter 7.1, Clause 7.1.12, and undergo an appropriate integrity test, where required. Any damage to the membrane is repaired in accordance with section 15 of this Certificate and reinspected.

5 Practicability of installation

The system should only be installed by trained contractors using specialist equipment. Details of these are available from the Certificate holder.

6 Weathertightness



The system will adequately resist the passage of moisture to the interior of a building and so enable a roof to comply with the requirements of the national Building Regulations.

7 Properties in relation to fire



7.1 A roof incorporating the system will be unrestricted under the national Building Regulations in the following circumstances:

- protected or inverted roof specifications, including an inorganic covering 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 soil layer 300 mm thick
- irrigated roof gardens and green roofs.



7.2 Exposed areas of the capsheets, when used with one of the surface finishes detailed in Approved Document B, Appendix A, Table A5, part iii (Wales) and Technical Booklet E, Table 4.6, part iv (Northern Ireland) (listed below), would be deemed to be unrestricted:

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



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

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



7.5 The Certificate holder has not declared a reaction to fire classification to BS EN 13501-1 : 2018.



7.6 In England and Wales and Northern Ireland, the system should not be used on balconies on buildings that have a storey at least 18 m above ground level and which contain one or more dwellings, an institution, a room for residential purposes (excluding any room in a hostel, hotel or boarding house), student accommodation, care homes, sheltered housing, hospitals or dormitories in boarding schools and additionally, in Northern Ireland, nursing homes and places of lawful detention.



7.7 In Scotland, the system should not be used on balconies of buildings with a storey more than 11 m above the ground.

8 Resistance to wind uplift

8.1 The system, when used within a suitable specification, will adequately resist the effects of wind uplift likely to occur in practice.

8.2 The ballast requirements for inverted roof system should be calculated by a suitably experienced and competent individual in accordance with the relevant parts of BS EN 1991-1-4 : 2005 and its UK National Annex. When gravel ballast is used, the system should always be loaded with a minimum depth of 50 mm of aggregate. In areas of high-wind exposure, the Certificate holder's advice should be sought. Alternatively, concrete slabs on suitable supports can be used.

8.3 The soil used in roof gardens and ballast on inverted/protected roofs must not be of a type that will be removed or become delocalised owing to wind scour experienced on the roof.

8.4 It should be recognised that the type of plants used in roof gardens could significantly affect the expected wind loads experienced in service.

9 Resistance to mechanical damage

9.1 The system can accept the limited foot traffic and light concentrated loads associated with installation, maintenance and pedestrian traffic on defined walkways. Reasonable care should be taken to avoid puncture of the system by sharp objects or concentrated loads.

9.2 When used over construction or expansion joints, the system can accommodate, without damage, the minor structural movements likely to occur under normal service conditions.

10 Resistance to penetration by roots

Results of root penetration resistance tests on Proteus Hot Melt Anti-Root Plain Capsheet, including joints, indicate that the capsheet is resistant to root penetration and can be used in roof waterproofing specifications for roof gardens and green roofs.

11 Maintenance



11.1 The system should be the subject of six-monthly inspections and maintenance in accordance with BS 6229 : 2018, Chapter 7, and the manufacturer's own maintenance requirements, where relevant, to ensure continued satisfactory performance.

11.2 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 4.12). Guidance for the maintenance of roof gardens and green roofs is available within the latest edition of *The GRO Green Roof Code — Green Roof Code of Best Practice for the UK*.

11.3 Where damage has occurred it should be repaired, at the earliest opportunity, in accordance with section 15 and the Certificate holder's instructions.

12 Durability



When fully protected and subject to normal service conditions, the system can provide an effective barrier to the transmission of liquid water and water vapour for the life of the roof in which it is incorporated.

Installation

13 General

13.1 Proteus Hot Melt must be installed on a dry and frost-free substrate, in accordance with the relevant clauses of the Liquid Roofing and Waterproofing Association (LRWA), Note 7 – *Specifier Guidance for Flat Roof Falls*, this Certificate and the Certificate holder's instructions. After rain or snow the substrate must be allowed to dry before installation can commence. The installing contractor can aid drying by suitable means approved by the Certificate holder.

13.2 The surface of the concrete substrate must be sound and free from contaminants.

13.3 To assess the suitability of a substrate to receive the capsheets, bond tests must be carried out in accordance with the Certificate holder's instructions. If bonding problems occur, advice should be sought from the Certificate holder.

13.4 The substrate is primed using Pro-Prime Bitumen at a nominal coverage rate of $200 \text{ m}\ell\cdot\text{m}^{-2}$, dependent on the substrate porosity, and allowed to dry for between 1 and 3 hours, depending upon ambient conditions.

13.5 Soil 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.

14 Procedure

14.1 Proteus Hot Melt Compound blocks are heated in an air jacketed boiler or a thermostatically controlled bitumen boiler to a temperature of between 170 and 180°C . Overheating and prolonged heating should be avoided.

14.2 Proteus Hot Melt Force is then unrolled over the primed substrate, with minimum overlaps of 75 mm .

14.3 The heated Proteus Hot Melt Compound is then poured through Proteus Hot Melt Force at an application rate of $3 \text{ kg}\cdot\text{m}^{-2}$.

14.4 Proteus Hot Melt Sanded Capsheet or Proteus Hot Melt Anti-Root Plain Capsheet is immediately unrolled into the hot melt compound with overlaps of 100 mm at the sides and 150 mm at ends. The capsheets must always be installed with end laps staggered by a minimum of 300 mm and in such a manner that no counter-seams in the direction of outlets are made. Excess compound should extrude from the edges of the capsheet. The capsheet must be fully bonded to the hot melt compound.

14.5 Upstands and other detailing are carried out in accordance with the Certificate holder's installation instructions.

15 Repair

In the event of minor damage, the capsheet can be fully repaired with an additional patch of the applicable capsheet bonded to the damaged area. In the event of major damage, a full repair using Proteus Hot Melt system will be required.

16 Tests

Tests were carried out and the results assessed to determine:

- thickness
- mass per unit area
- tensile strength and elongation
- needle penetration
- flow resistance
- low temperature flexibility
- thermogravimetric analysis
- head of water
- dynamic indentation
- static indentation
- fatigue cycling.

17 Investigations

The manufacturing process was evaluated, including the methods adopted for quality control, and details were obtained of the quality and composition of the materials used.

Bibliography

BS 6229 : 2018 *Flat roofs with continuously supported flexible waterproof coverings — Code of practice*

BS 8217 : 2005 *Reinforced bitumen membranes for roofing — Code of practice*

BS 8579 : 2020 *Guide to the design of balconies and terraces*

BS EN 636: 2012 + A1 : 2015 *Plywood — Specifications*

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

EN 13707 : 2013 *Flexible sheets for waterproofing — Reinforced bitumen sheets for roof waterproofing — Definitions and characteristics*

BS EN ISO 9001 : 2015 *Quality management systems — Requirements*

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
- 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 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:

- the presence or absence of any patent, intellectual property or similar rights subsisting in the product or any other product
- 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
- any loss or damage, including personal injury, howsoever caused by the product, including its manufacture, supply, installation, use, maintenance and removal
- any claims by the manufacturer relating to UKCA, UKNI or 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.