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Agrément Certificate

24/7275

Product Sheet 3 Issue 1

ALUMASC EUROROF BITUMINOUS ROOFING MEMBRANES

EUROROF SELF-ADHESIVE SYSTEM

This Agrément Certificate Product Sheet⁽¹⁾ relates to the Eurorof Self-Adhesive System, consisting of self-adhesive SBS modified bitumen waterproofing membranes and air and vapour control layers, for use in new and existing buildings as built-up roofing systems on pitched, flat and protected roofs, and podia, with limited access or pedestrian access and with suitable protection.

(1) Hereinafter referred to as 'Certificate'.

The assessment includes

Product factors:

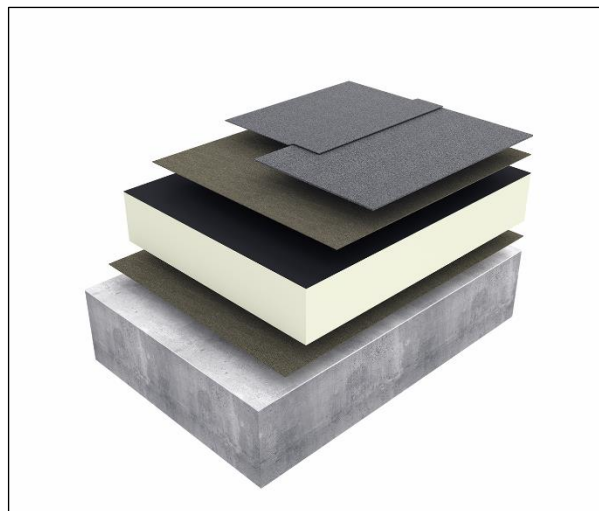
- compliance with Building Regulations
- compliance with additional regulatory or non-regulatory information where applicable
- evaluation against technical specifications
- assessment criteria and technical investigations
- uses and design considerations

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 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 issue: 19 November 2024

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 the Euroroof Self-Adhesive System, 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 system is 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 system may enable a roof to be unrestricted under this Requirement. See section 2 of this Certificate.
Requirement:	C2(b)	Resistance to moisture
Comment:		The system, including joints, will enable a roof to satisfy this Requirement. See section 3 of this Certificate.
Requirement:	C2(c)	Resistance to moisture
Comment:		The system, including joints, can contribute to a roof to satisfying this Requirement. See section 3 of this Certificate.
Regulation:	7(1)	Materials and workmanship
Comment:		The system 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 system satisfies this Regulation. See sections 8 and 9 of this Certificate.
Regulation:	9	Building standards - construction
Standard:	2.8	Spread from neighbouring buildings
Comment:		The system, when applied to a suitable substructure, may enable a roof to be unrestricted by this Standard with reference to clause 2.8.1 ⁽¹⁾⁽²⁾ . See section 2 of this Certificate.
Standard:	3.10	Precipitation
Comment:		The system, including joints, will enable a roof to satisfy 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 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.
Standard:	3.15	Condensation
Comment:		The system will enable a roof to satisfy this Standard, with reference to clauses 3.15.1 ⁽¹⁾ , 3.15.3 ⁽¹⁾ , 3.15.5 ⁽¹⁾ and 3.15.6 ⁽¹⁾ . See section 3 of this Certificate.

Regulation:	12	Building standards - conversion
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 can satisfy this Regulation. See sections 8 and 9 of this Certificate.
Regulation:	28(b)	Resistance to moisture and weather
Comment:	The system can satisfy this Regulation. See section 3 of this Certificate.	
Regulation:	29	Condensation
Comment:	The system can contribute to a roof satisfying this Regulation. See section 3 of this Certificate.	
Regulation:	36(a)	External fire spread
Comment:	The system is 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 system may enable a roof to be unrestricted under of this Regulation. See section 2 of this Certificate.	

Additional Information

NHBC Standards 2024

In the opinion of the BBA, the Eurorooft Self-Adhesive System, 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 system, 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 system.

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

Fulfilment of Requirements

The BBA has judged the Eurorooft Self-Adhesive System to be satisfactory for use as described in this Certificate. The system has been assessed as a self-adhered, multilayer waterproofing system on new and existing buildings. The system is for use on pitched, flat and protected roofs, and podia, with limited access or pedestrian access and with suitable protection.

Product description and intended use

The Certificate holder provided the following description for the system under assessment. The Eurorooft Self-Adhesive System consists of:

- Eurorooft Self-Adhesive Cap Sheet — a styrene-butadiene-styrene (SBS) modified bitumen membrane with a stabilised polyester reinforcement and mineral finish in various colours
- Eurorooft Self-Adhesive Venting Underlay — a polyester reinforced, SBS modified bitumen underlayer, with a perforated polypropylene fleece plus a removable silicone film on the underside and PE film on the upper surface
- Eurorooft Self-Adhesive Underlay — a polyester reinforced, SBS modified bitumen underlayer, with a removable silicone film on the underside and PE film on the upper surface
- Eurorooft Self-Adhesive AVCL — a polyester reinforced, self-adhesive, SBS modified bitumen vapour barrier with an aluminium core, with a polyethylene film on the underside and mineral micro granules on the upper surface
- Eurorooft Spray SA Primer — a solvent-based primer.

The system components have the nominal characteristics given in Table 1.

Table 1 Nominal characteristics

Characteristic (unit)	Eurorooft Self-Adhesive Cap Sheet	Eurorooft Self-Adhesive Venting Underlay	Eurorooft Self-Adhesive Underlay	Eurorooft Self-Adhesive AVCL
Thickness (mm)	4.2	2.0	2.0	2.0
Width (m)	1.0	1.0	1.0	1.0
Length (m)	8.0	15.0	15.0	15.0
Mass per unit area (kg·m ⁻²)	5.2	2.8	2.1	2.3
Weight per roll (kg)	40.8	42.0	37.0	40

Ancillary Items

Eurorooft Spraybond Primer, a solvent-based primer, is essential to use with the system and has been assessed with the system.

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:

- Eurorooft Self-Adhesive AVCL
- 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 Foamglas T4 Ready Board Warm Roof Insulation — foamed glass thermal insulation
- Alumasc GTF PIR Insulation Boards
- Alumasc BGT PIR Insulation Boards
- Eurorooft PU Insulation Adhesive
- Eurorooft SA Primer
- Skyline — a polyester powder coated aluminium coping, soffit and fascia system
- Modulock — a raised adjustable pedestal system for paving and decking.

Applications

The systems are intended for use in fully or partially bonded flat or pitched roofs with limited access, as part of a built-up specification and, where necessary, in conjunction with appropriate reinforced bitumen membranes.

Definitions for products and applications inspected

The following terms have been 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 that is not subjected to vehicular traffic
- flat roof — a roof having a minimum finished fall of 1:80
- pitched roof — a roof having a fall in excess of 1:6.

Product assessment – key factors

The system was assessed for the following key factors, and the outcome of the assessment 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 characteristics.

2.1 External fire spread

2.1.1 When tested to UNI CEN/TS 1187 : 2012, Test 4 and classified to UNI EN 13501-5 : 2016 the specifications given in Table 2 of this Certificate achieved $B_{ROOF}(t_4)$ for slopes below 10°.

Table 2 Tested systems

Layer	System 1	System 2
Substrate	18 mm Plywood ⁽¹⁾	
Adhesive	Eurorooft PU Insulation Adhesive (foamable adhesive) ⁽¹⁾	
Air and vapour control layer (AVCL)	Eurorooft Self-Adhesive AVCL (2 mm thick) ⁽¹⁾	
Insulation	Polyisocyanurate (PIR) foam insulation board (Class S) – 30 mm	Polyisocyanurate (PIR) foam insulation board (Class S) – 260 mm ⁽¹⁾
Underlayer	Eurorooft Self-Adhesive Underlay (2.0 mm thick)	
Cap Sheet	Eurorooft Self-Adhesive Cap Sheet (4.2 mm thick)	

(1) 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 system will be similarly unrestricted under the national Building Regulations in protected or inverted roof specifications, including an inorganic covering listed in the Annex of Commission Decision 2000/553/EC.

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 will be similarly unrestricted:

- 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
- 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.

2.2 Reaction to fire

2.2.1 The Certificate holder has not declared a reaction to fire classification for the systems to BS EN 13501-1 : 2018.

2.2.2 The system will be restricted in use under the documents supporting the national Building Regulations in some cases.

2.2.3 In England, the system, 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 Wales the system, when used in pitches greater than 70°, excluding upstands, must not be used less than 1 m from a relevant boundary, or on 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.

2.2.5 In Northern Ireland, for systems used on walls or on roofs with pitches greater than 70°, excluding upstands, that do not achieve the minimum Class E reaction to fire classification to BS EN 13501-1 : 2018, designers must seek guidance on the proposed use of the system from the relevant Building Control Body.

2.2.6 In Scotland, the use of the system 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.

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.

Table 3 Weathertightness results

Product assessed	Assessment method	Requirement	Result (Mean)
Eurorooft Self-Adhesive AVCL	Resistance to Peel from Support (concrete) to MOAT 64	$\geq 25 \text{ N} \cdot (50 \text{ mm})^{-1}$	Pass
Eurorooft Self-Adhesive AVCL	Water vapour diffusion - equivalent air layer thickness BS EN 1931 : 2000	Value achieved	21165 m
Eurorooft Self-Adhesive Underlay	Watertightness to EN 1928 : 2000 10 kPa	No leakage	Pass
Built up system: Plywood, Eurorooft SA Primer, Eurorooft Self-Adhesive AVCL, Eurorooft insulation adhesive, Eurorooft PIR Insulation, SA spray primer, Eurorooft Self-Adhesive Underlay, Eurorooft Self-Adhesive Cap Sheet	Resistance to wind uplift to MOAT 64 : 2001	Value achieved	-3 kPa
Eurorooft Self-Adhesive AVCL: Plywood, Eurorooft SA Primer, Eurorooft Self-Adhesive AVCL	Wind uplift to MOAT 64 : 2001	Value achieved	4 kPa

3.1.2 On the basis of data assessed, the system, including joints, when completely sealed and consolidated, will adequately resist the passage of moisture to the inside of a building and so satisfy the requirements of the national Building Regulations.

3.1.3 The adhesion of the system is sufficient to resist the effects of wind suction, elevated temperature and thermal shock conditions likely to occur in practice.

3.2 Resistance to mechanical damage

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

Table 4 Mechanical resistance results

Product assessed	Assessment method	Requirement	Result	
EurorooF Self-Adhesive Cap Sheet	Tensile strength to NEN EN 12311-1 : 1999	Value achieved		
	Longitudinal direction		735 N·(50 mm) ⁻¹	
	Transverse direction		530 N·(50 mm) ⁻¹	
EurorooF Self-Adhesive Underlay	Longitudinal direction		695 N·(50 mm) ⁻¹	
	Transverse direction		505 N·(50 mm) ⁻¹	
EurorooF Self-Adhesive Venting Underlay	Longitudinal direction		745 N·(50 mm) ⁻¹	
	Transverse direction		520 N·(50 mm) ⁻¹	
EurorooF Self-Adhesive AVCL	Longitudinal direction		305 N·(50 mm) ⁻¹	
	Transverse direction		195 N·(50 mm) ⁻¹	
EurorooF Self-Adhesive Cap Sheet	Elongation to NEN EN 12311-1 : 1999	Value achieved		
	Longitudinal direction		42%	
	Transverse direction		46%	
EurorooF Self-Adhesive Underlay	Longitudinal direction		37%	
	Transverse direction		46%	
EurorooF Self-Adhesive Venting Underlay	Longitudinal direction		39%	
	Transverse direction		45%	
EurorooF Self-Adhesive AVCL	Longitudinal direction		3%	
	Transverse direction		30%	
EurorooF Self-Adhesive Cap Sheet plus EurorooF Self-Adhesive Underlay	Dynamic indentation to EOTA TR-006 : 2004	Value achieved		
			- on aluminium	l ₄
			- on EPS insulation	l ₄
EurorooF Self-Adhesive Cap Sheet plus EurorooF Self-Adhesive Underlay	Static indentation to EN 12730 : 2015	Value achieved		
			- on aluminium	20 kg
			- on EPS insulation	20 kg
EurorooF Self-Adhesive Cap Sheet	Resistance to tearing to NEN EN 12310-1 : 1999	≥ 50 N		
	Longitudinal direction		Pass	
	Transverse direction		Pass	
EurorooF Self-Adhesive Underlay	Longitudinal direction		Pass	
	Transverse direction		Pass	
EurorooF Self-Adhesive Venting Underlay	Longitudinal direction		Pass	
	Transverse direction		Pass	
EurorooF Self-Adhesive AVCL	Longitudinal direction		Pass	
	Transverse direction		Pass	
EurorooF Self-Adhesive Cap Sheet	Low temperature flexibility to BS EN 1109 : 2013	≤ -15°C	Pass	
EurorooF Self-Adhesive Underlay			Pass	
EurorooF Self-Adhesive Venting Underlay			Pass	
EurorooF Self-Adhesive AVCL			Pass	

3.2.2 On the basis of data assessed, the system can accept, without damage, the foot traffic and light concentrated loads associated with installation and maintenance and the effects of minor movement likely to occur in practice.

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. Reasonable care must be taken to avoid puncture by sharp objects or concentrated loads.

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

Not applicable.

8 Durability

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

8.2 Specific test data were assessed as given in Table 5.

<i>Table 5 Durability tests</i>			
Product assessed	Assessment method	Requirement	Result
Eurorooft Self-Adhesive Cap Sheet	Low temp flexibility to BS EN 1109 : 2013	≤ 0°C and a maximum deviation of 15°C to the initial flexibility at low temperature	Pass
	Heat aged for 200 days at 70°C		Pass
Eurorooft Self-Adhesive AVCL			
Eurorooft Self-Adhesive Cap Sheet	Resistance to slippage at 45 degrees to MOAT 64 : 2001	< 2 mm	Pass
Eurorooft Self-Adhesive Underlay	Determination of dimensional stability to EN 1107-1 : 2000	≤ 0.5 %	Pass
Eurorooft Self-Adhesive Cap Sheet	Heat resistance to EN 1110 : 2010	≥ 100°C	Pass
	Control		Pass
Eurorooft Self-Adhesive AVCL	Heat aged for 200 days at 70°C	≥ 90°C	Pass
	Resistance to Peel from Support (concrete) to MOAT 64	Aged samples should be within 50% of the control and ≥25 N·(50 mm) ⁻¹	Pass
Heat aged 28 days at 80°C			

8.3 Service life

8.3.1 Under normal service conditions, the system will have a life in excess of 25 years, provided it is designed, installed and maintained in accordance with this Certificate and the Certificate holder's instructions.

8.3.2 Localised loss of the mineral surfacing may occur, after some years, in areas where complex detailing of the roof design is incorporated.

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 satisfy the performance assessed in this Certificate.

9.1.2 Decks to which the system is to be applied must comply with the relevant requirements of BS 6229 : 2018, BS 8217 : 2005 and, where appropriate, *NHBC Standards 2024*, Chapter 7.1.

9.1.3 For design purposes of flat roofs, twice the minimum finished fall must be assumed, unless a detailed structural analysis of the roof is available, including overall and local deflection, and direction of falls.

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

9.1.5 Bulk material must not be stored on one area of the roof prior to installation, to ensure that localised overloading does not occur.

9.1.6 Imposed loads, dead loading and wind loads 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.

9.1.7 The substructure must satisfy the requirements of the relevant clauses of BS 8217 : 2005, and one of the surface finishes described in clause 6.12 of the Code of Practice must be used.

9.1.8 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.

9.1.9 The ballast on protected roofs must be of a type that will not be removed or become delocalised owing to wind scour experienced on the roof.

9.1.10 Insulation materials to be used in conjunction with the systems 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 and the Certificate holder's instructions, and the relevant clauses of BS 8000-0 : 2014, BS 8000-4 : 1989 and BS 8217 : 2005.

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

9.2.4 The system 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 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.

9.2.6 The Eurorooft Self-Adhesive AVCL is installed with 75mm side and 150mm end laps, by removing the release film and firmly pressure rolling the surface to achieve a continuous bond across the full width of the membrane. Ensure that the membrane is accurately aligned, including overlaps, before removing the release film, and that it does not move as the film is removed.

9.2.7 The main field sheet should be pressure rolled with a weighted roller to ensure full contact of the membranes; the addition of hot air may be required to achieve full adhesion in colder conditions.

9.2.8 The side laps (75mm) and head laps (150mm) must be hot air welded and pressure rolled with a long or medium handled 15kg roller. All laps must have a visible bleed of bitumen.

9.2.9 The substrate must be primed with Eurorooft Spraybond Primer.

9.2.10 Eurorooft Self-Adhesive Underlay or Eurorooft Self-Adhesive Venting Underlay must be installed with 75 mm side and 150 mm end laps, by removing the release film and firmly pressure rolling the surface to achieve a continuous bond across the full width of the membrane.

9.2.11 The membrane must be accurately aligned, including overlaps, before removing the release film, and must not move as the film is removed.

9.2.12 The main field sheet must be pressure rolled with a weighted roller to ensure full contact of the membranes. the addition of hot air may be required to achieve full adhesion in colder conditions.

9.2.13 The side laps and head laps must be hot air welded and pressure rolled with a long or medium handled 15 kg roller.

9.2.14 The underlayer must be primed with Eurorooft Spraybond Primer prior to installing Eurorooft Self-Adhesive Cap Sheet.

9.2.15 Eurorooft Self-Adhesive Cap Sheet must be rolled carefully and the membrane installed with 100 mm side and 150 mm end laps, by removing the release film and firmly pressure rolling the surface to achieve a continuous bond across the full width of the membrane. Installation of the cap sheet is completed by following sections 9.2.8 and 9.2.10.

9.2.16 The system must always be installed with end laps staggered by approximately a quarter of its length from the previous sheet and in such a manner that no counter-seams are made in the direction of outlets.

9.2.17 The corners of membrane sheet which will be laid under the next sheet must be cut at a 45° angle (100 x 100 mm).

9.2.18 The upper layer of membrane must be applied astride and over the first one, always in the same direction.

9.2.19 The height of the vertical details must be equivalent or superior to the finished surface by at least 150 mm.

9.2.20 The NHBC requires that the system, once installed, is inspected in accordance with *NHBC Standards 2024*, Chapter 7.1, Clause 7.1.11, including undergoing an appropriate integrity test, where required. Any damage to the system assessed in this Certificate must be repaired in accordance with section 9.4 of this Certificate and reinspected, in order to maintain the system's performance.

9.3 Workmanship

Practicability of installation was assessed on the basis of the Certificate holder's information and BS 8217 : 2005. To achieve the performance described in this Certificate, the system must only be installed by contractors who have been trained and approved by the Certificate holder.

9.4 Maintenance and repair

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

9.4.2.2 In the event of damage to the waterproof layer, repairs can be carried out by cleaning the area around the damage and applying a patch of the membrane as described in the Certificate holder's instructions.

10 Manufacture

10.1 The production processes for the system 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 the product is delivered to site on pallets shrink wrapped in polythene, bearing the product name and bands bearing the Certificate holder's and product names, roll dimensions, production date and batch number.

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 must be stored upright on a clean, level surface and kept dry, away from excessive heat and under cover.

Supporting information in this Annex is relevant to the system 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 system components 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).

UKCA marking

The Certificate holder has taken the responsibility of UKCA marking the product in accordance with Designated Standard EN 13707 : 2004, EN 13969 : 2004, EN 14695 : 2010.

CE marking

The Certificate holder has taken the responsibility of CE marking the system components in accordance with harmonised European Standard EN 13707 : 2013.

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 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 EN 1931 : 2000 *Flexible sheets for waterproofing. Bitumen, plastic and rubber sheets for roof waterproofing. Determination of water vapour transmission properties*
- 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 + 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 1107-1 : 2000 *Flexible sheets for waterproofing — Determination of dimensional stability — Part 1: Bitumen sheets for roof waterproofing*
- EN 1109 : 2013 *Flexible sheets for waterproofing — Bitumen sheets for roof waterproofing — Determination of flexibility at low temperature*
- EN 1110 : 2010 *Flexible sheets for waterproofing — Bitumen sheets for roof waterproofing — Determination of flow resistance*
- EN 1928 : 2000 *Flexible sheets for waterproofing — Bitumen, plastic and rubber sheets for roof waterproofing — determination of watertightness*
- EN 12730 : 2015 *Flexible sheets for waterproofing. Bitumen, plastic and rubber sheets for roof waterproofing. Determination of resistance to static loading*
- UNI EN 13501-5 : 2016 *Fire classification of construction products and building elements — Classification using data from external fire exposure to roofs tests*
- EN 13707 : 2004 + A2 : 2009 *Flexible sheets for waterproofing — Reinforced bitumen sheets for roof waterproofing — Definitions and characteristics*
- EN 13707 : 2013 *Flexible sheets for waterproofing — Reinforced bitumen sheets for roof waterproofing — Definitions and characteristics*
- EN 13969 : 2004 + A1 : 2006 *Flexible sheets for waterproofing - Bitumen damp proof sheets including bitumen basement tanking sheets - Definitions and characteristics*
- EN 14695 : 2010 *Flexible sheets for waterproofing - Reinforced bitumen sheets for waterproofing of concrete bridge decks and other trafficked areas of concrete - Definitions and characteristics*
- EOTA TR-006 : 2004 *Determination of the resistance to dynamic indentation*
- UNI CEN/TS 1187 : 2012 *Test methods for external fire exposure to roofs*
- MOAT 64 : 2001 *Technical guide for the assessment of roof waterproofing systems made of reinforced APP or SBS polymer modified bitumen sheets*
- NEN EN 12310-1: 1999 *Flexible sheets for waterproofing — Determination of resistance to tearing (nail shank) - Part 1: Bitumen sheets for roof waterproofing*
- NEN EN 12311-1 : 1999 *Flexible sheets for waterproofing — Determination of tensile properties — Part 1 : Bitumen sheets for roof waterproofing*

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