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### Agrément Certificate

20/5784

Product Sheet 1 Issue 2

## GARLAND TORCH-ON ROOF WATERPROOFING MEMBRANES

### STRESSPLY FLEX AND STRESSPLY FLEX PLUS ROOF WATERPROOFING MEMBRANES

This Agrément Certificate Product Sheet<sup>(1)</sup> relates to StressPly Flex and StressPly Flex Plus Roof Waterproofing Membranes, for use in flat and pitched roof waterproofing specifications with limited access, and blue roofs on flat, including zero fall, roofs in combination with a storm water attenuation system<sup>(2)</sup>.

(1) Hereinafter referred to as 'Certificate'.

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

#### The assessment includes

##### Product factors:

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

##### Process factors:

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

##### Ongoing contractual Scheme elements†:

- regular assessment of production
- formal 3-yearly review

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 Second issue: 4 September 2024

Originally certified on 16 July 2020



#### 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

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 Stressply Flex and StressPly Flex Plus Roof Waterproofing Membranes, 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)

<b>Requirement:</b>	<b>B4(1)</b>	<b>External fire spread</b>
Comment:		The products are restricted by this Requirement in some circumstances. See section 2 of this Certificate.
<b>Requirement:</b>	<b>B4(2)</b>	<b>External fire spread</b>
Comment:		On a suitable substructure, the products may enable a roof to be unrestricted under this Requirement. See section 2 of this Certificate.
<b>Requirement:</b>	<b>C2(b)</b>	<b>Resistance to moisture</b>
Comment:		The products, including joints, will enable a roof to satisfy this Requirement. See section 3 of this Certificate.
<b>Regulation:</b>	<b>7(1)</b>	<b>Materials and workmanship</b>
Comment:		The products are acceptable. See sections 8 and 9 of this Certificate.



#### The Building (Scotland) Regulations 2004 (as amended)

<b>Regulation:</b>	<b>8(1)(2)</b>	<b>Fitness and durability of materials and workmanship</b>
Comment:		The use of the products satisfies this Regulation. See sections 8 and 9 of this Certificate.
<b>Regulation:</b>	<b>9</b>	<b>Building standards - construction</b>
Standard:	2.8	Spread from neighbouring buildings
Comment:		The products, when applied to a suitable substructure, may enable a roof to be unrestricted by this Standard, with reference to clause 2.8.1 <sup>(1)(2)</sup> . See section 2 of this Certificate.
Standard:	3.10	Precipitation
Comment:		The products, including joints, will enable a roof to satisfy this Standard, with reference to clauses 3.10.1 <sup>(1)(2)</sup> and 3.10.6 <sup>(1)(2)</sup> . 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.
<b>Regulation:</b>	<b>12</b>	<b>Building standards - conversion</b>
Comment:		Comments in relation to the products under Regulation 9, Standards 1 to 6, also apply to this Regulation, with reference to clause 0.12.1 <sup>(1)(2)</sup> and Schedule 6 <sup>(1)(2)</sup> .

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



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

<b>Regulation:</b>	<b>23(1)(a)(i)</b>	<b>Fitness of materials and workmanship</b>
<b>Comment:</b>	<b>(iii)(b)(i)</b>	The products are acceptable. See sections 8 and 9 of this Certificate.
<b>Regulation:</b>	<b>28(b)</b>	<b>Resistance to moisture and weather</b>
<b>Comment:</b>		The products, including joints, will enable a roof to satisfy this Regulation. See section 3 of this Certificate.
<b>Regulation:</b>	<b>36(a)</b>	<b>External fire spread</b>
<b>Comment:</b>		The products are restricted by this Regulation in some circumstances. See section 2 of this Certificate.
<b>Regulation:</b>	<b>36(b)</b>	<b>External fire spread</b>
<b>Comment:</b>		On a suitable substructure, the products may enable a roof to be unrestricted by this Regulation. See section 2 of this Certificate.

### Additional Information

#### NHBC Standards 2024

In the opinion of the BBA, StressPly Flex and StressPly Flex Plus Roof Waterproofing Membranes, 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.

### Fulfilment of Requirements

The BBA has judged StressPly Flex and StressPly Flex Plus Roof Waterproofing Membranes to be satisfactory for use as described in this Certificate. The products have been assessed as for use in flat and pitched roof waterproofing specifications with limited access, and blue roofs on flat, including zero fall, roofs in combination with a storm water attenuation system.

### ASSESSMENT

#### Product description and intended use

The Certificate holder provided the following description for the products under assessment. StressPly Flex and StressPly Flex Plus Roof Waterproofing Membranes are torch-on capsheets, comprising styrene-butadiene-styrene (SBS) copolymer modified bitumen sheets with non-woven polyester reinforcement ( $250 \text{ g}\cdot\text{m}^{-2}$ ), a mineral finish on the upper surface and a thermofusible film on the lower surface and a side and end selvedge to give enhanced lap joint security.

The products have the nominal characteristics given in Table 1.

**Table 1 Nominal characteristics of StressPly Flex and Stressply Flex Plus Roof Waterproofing Membranes**

Characteristic (unit)	StressPly Flex	StressPly Flex Plus
Thickness (mm)	4.6	5.2
Roll width (m)	1	1
Roll length (m)	7.5	5.0
Roll weight (kg)	41	32.5
Mass per unit area (kg·m <sup>-2</sup> )	5.5	6.5
Mineral finish colour	Brown or Charcoal grey	Brown or Charcoal grey

#### Ancillary Items

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:

- Garland Garla-Prime — a bitumen primer for preparation of concrete, masonry and metal substrates
- Garland StressPly Flex SA — for use in detailing/flashing in areas such as upstands to pitched roof eaves
- Garland Torch Flex Ultra-Vent — a torch-on underlay
- Garland Torch Evolution Base Sheet — a torch-on underlay
- Garland SA Flex Base Sheet — a self-adhesive underlay
- Garland Torch Flex Vapour Barrier — a torch-on air and vapour control layer (AVCL)
- Garland SA Flex Vapour Barrier — a self-adhesive AVCL
- Garland SA Contact Primer — a primer for use in preparing substrates prior to the installation of self-adhesive membranes
- Garland Insul-Lock — an adhesive for bonding insulation
- Garland Insul-Bond — an adhesive for bonding insulation
- Garland Insul-Pro — a canister based adhesive for bonding insulation.

#### Applications

StressPly Flex and Stressply Flex Plus Roof Waterproofing Membranes are satisfactory for use as a top layer (capsheet) in a partially or fully bonded waterproofing system on flat or pitched roofs with limited access, and blue roofs on flat specifications, including zero fall, roofs in combination with a storm water attenuation system<sup>(1)</sup>.

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

#### Definitions for products and applications inspected

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

- limited access roof — a roof subjected only to pedestrian traffic for maintenance of the roof covering, cleaning of gutters, etc
- flat roof — a roof having a minimum finished fall of 1:80
- pitched roof — a roof having a fall in excess of 1:6
- zero fall roofs — a roof having a finished fall which can vary between 0 and 1:80
- blue roof — a flat roof designed to allow controlled attenuation of rain fall during heavy and storm events, as part of sustainable urban drainage systems (SUDS).

## **Product assessment – key factors**

The products were assessed for the following key factors, and the outcome of the assessments are 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 DD CEN/TS 1187 : 2012, Test 4 and classified to EN 13501-5 : 2016 the constructions given in Table 2 of this Certificate achieved B<sub>ROOF</sub>(t4) for slopes below 10°.

*Table 2 Fire test results*

Product	StressPly Flex <sup>(1)</sup>	StressPly Flex Plus <sup>(2)</sup>	Stressply Flex/Flex Plus <sup>(3)</sup>
Substrate <sup>(4)</sup>	18 mm orientated strand board OSB3 substrate	18 mm OSB3 substrate	18 mm OSB3 substrate
AVCL <sup>(4)</sup>	3 mm Garland SA Vapour Barrier	3 mm Garland SA Vapour Barrier	3 mm Garland SA Vapour Barrier
Adhesive <sup>(4)</sup>	Insul-bond polyurethane (PU)-based insulation adhesive	Insul-bond PU-based insulation adhesive	Insul-bond PU-based insulation adhesive
Insulation <sup>(4)</sup>	130 mm Powerdeck U polyisocyanurate (PIR) insulation board	130 mm Powerdeck U PIR insulation board	Powerdeck U PIR insulation board of thickness 30mm to 280mm (140mm and 140mm double layer) inclusive Stylite Hybrid EPS ≥ 30 mm - as an optional base
Base sheet <sup>(4)</sup>	Garland Torch Flex Ultra-Vent (torched on)	Garland Torch Flex Ultra-Vent (torched on)	Garland Torch Flex Ultra-Vent (torched on)
Cap sheet	Garland StressPly Flex (torched on)	Garland StressPly Flex Plus (torched on)	Garland StressPly Flex or Flex Plus (torched on)

(1) Fire test/Classification reports, reference 19886G and 19886H, conducted by Warrington Fire, Gent. Reports available from the Certificate holder on request.

(2) Fire test/ Classification reports, reference 19886K and 19886L, conducted by Warrington Fire, Gent. Reports available from the Certificate holder on request.

(3) Fire test/ Classification reports, reference 21391A, 20508H, 21381B and 21391C, conducted by Warrington Fire, Gent. Reports available from the Certificate holder on request.

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

2.1.2 On the basis of data assessed, the constructions listed above 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, when used in protected 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 is also deemed to be unrestricted with respect to a relevant 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
- macadam.

2.1.5 The designation 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 to EN 13501-1 : 2018 for the products.

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

2.2.3 In England, 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 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 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 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.

### 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 test results*

Product assessed	Assessment method	Requirement	Result
Garland StressPly Flex	Watertightness to BS EN 1928 : 2000	No leakage after 24 hr exposure to 60 kPa water pressure	Pass
Garland StressPly Flex	Peel resistance of joints to BS EN 12316-1 : 2000	$\geq 100 \text{ N} \cdot (50 \text{ mm})^{-1}$	Pass
Garland StressPly Flex	Shear resistance of joints to BS EN 12317-1 : 2000	$\geq 500 \text{ N} \cdot (50 \text{ mm})^{-1}$	Pass
Built-up construction: 18mm OSB <sup>(1)</sup> Garland Quick Prime <sup>(1)</sup> SA-105 SA Flex Vapour Barrier <sup>(1)</sup> Insul – bond insulation adhesive <sup>(1)</sup> 130 mm Powerdeck U PIR <sup>(1)</sup> Torch Ultra Vent <sup>(1)</sup> Torch evolution base Sheet <sup>(1)</sup> Garland StressPly Flex Capsheet	Resistance to wind uplift to MOAT 64 : 2001	Value achieved	2.5 kPa Failure of sample was delamination between AVCL and insulation adhesive. A secondary failure occurred at the interface of underlay and insulation board facing.

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

3.1.2 On the basis of data assessed, the products, 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 design wind resistance must be determined by using the appropriate partial factors, to be calculated by a suitably experienced and competent individual in accordance with BS EN 1991-1-4 : 2005 and its UK National Annex. The products, when used in accordance with the design wind resistance and properly installed on suitable flat roof decks, can adequately transfer negative and positive (suction and pressure) wind loads to the roof deck.

### 3.2 Resistance to mechanical damage

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

Product assessed	Assessment method	Requirement	Result
Garland StressPly Flex	Nail tear strength to BS EN 12310-1 : 2000 longitudinal direction transverse direction	≥150 N	Pass
		≥150 N	Pass
Garland StressPly Flex	Tensile strength to BS EN 12311-1 : 2000 longitudinal direction transverse direction	Value achieved	824 N·(50 mm) <sup>-1</sup> 745 N·(50 mm) <sup>-1</sup>
Garland StressPly Flex	Elongation to BS EN 12311-1 : 2000 longitudinal direction transverse direction	Value achieved	43% 42%
Garland StressPly Flex	Resistance to static loading to BS EN 12730 : 2015 Method A (EPS) Method B (concrete)	Value achieved	20 kg 20 kg
Garland StressPly Flex	Dynamic indentation to BS EN 12691 : 2006 Method A (aluminium) Method B (EPS)	Value achieved	1250 mm 1350 mm

3.2.2 On the basis of data assessed, the products 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 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). 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 these products were assessed.

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

**Table 5 Results of durability tests**

Products assessed	Assessment method	Requirement	Result
Garland StressPly Flex Plus	Low temperature flexibility to MOAT 64 : 4.2.5 2001 control - upper face - lower face	Value achieved	-20°C
			-20°C
	heat aged for 240 days at 70°C - upper face - lower face	Value achieved	-10°C
			-10°C
Garland StressPly Flex Plus	Heat resistance to BS EN 1110 : 2010 control heat aged for 240 days at 70°C	Value achieved	110°C
			90°C
Garland StressPly Flex	Dimensional stability to BS EN 1107-2 : 2001 longitudinal direction	±0.3%	Pass
Garland StressPly Flex	Peel resistance of joints to BS EN 12316-1 : 2000 water exposure for 180 days at 60°C	≥100 N·(50 mm) <sup>-1</sup>	Pass
Garland StressPly Flex	Shear resistance of joints to BS EN 12317-1 : 2000 water exposure for 180 days at 60°C	≥500 N·(50 mm) <sup>-1</sup>	Pass

### 8.3 Service life

8.3.1 Under normal service conditions, the products will have a life of at least 30 years provided that they are 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.

## 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 satisfy 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 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, direction of falls.

9.1.4 Structural decks to which the products are 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 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 must be correctly designed, and the following points must be addressed:

- provision made for access for maintenance purposes
- it is particularly important to identify the correct drainage points, to ensure that drainage is sufficient and effective.

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 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.

9.1.9 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.

## 9.2 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 8000-0 : 2014, BS 8000-4 : 1989 and BS 8217 : 2005, . A summary of instructions and guidance are provided in Annex A of this Certificate.

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

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

9.2.5 The substrate must be prepared using a suitable primer prior to installation of the waterproofing system. The Certificate holder can advise on suitable materials for this purpose, but such advice and products are outside the scope of this Certificate.

9.2.6 Underlays must be installed in accordance with the appropriate clauses of BS 8217 : 2005.

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

9.2.8 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.

9.2.9 Bonding is achieved by melting the lower surface by torching and pressing the membrane down. Care must be taken not to overheat the membrane.

9.2.10 The products must be installed with side laps of 100 mm and end laps of 150 mm, ensuring that a continuous bead of bitumen exudes from the lap, with laps between the membrane and any base sheets offset by a minimum of 300 mm.

9.2.11 When partially bonding, a suitable venting layer is loose-laid across the substrate with the appropriate overlaps and the waterproofing system fully bonded over the venting layer.

9.2.12 Detailing must be carried out in accordance with the Certificate holder's instructions.

9.2.13 The NHBC requires that the products, once installed, be inspected in accordance with *NHBC Standards 2024* Chapter 7.1, Clause 7.1.11 and undergo 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.

### 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 products must only be installed by contractors/installers who have been trained and approved by the Certificate holder.

### 9.4 Maintenance and repair

9.4.1 Ongoing satisfactory performance of the products 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 satisfy 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 of BS 6229 : 2018, Chapter 7, and the Certificate holder's own maintenance requirements, where relevant, to ensure continued satisfactory performance.

9.4.2.2 In the event of damage, the capsheet can be effectively repaired, after cleaning the surrounding areas, with a patch of the membrane torch bonded over the damaged area in accordance with the Certificate holder's instructions.

## **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 the products are delivered to site in packaging bearing the product name, the Certificate holder's name, and the BBA logo incorporating the number of this Certificate. The rolls are packed on pallets and shrink wrapped in polythene.

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

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

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.

### Additional information on installation

A.1 For zero fall roofs reference should be made to the appropriate clauses in Liquid Roofing and Waterproofing Association (LRWA) Note 7 – *Specifier Guidance for Flat Roof Falls*

A.2 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*.

## 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 + A1; 2024 *Workmanship on construction sites — Introduction and general principles*  
BS 8000-4 : 1989 *Workmanship on building sites — Code of practice for waterproofing*
- BS EN 1107-2 : 2001 *Flexible sheets for waterproofing — Determination of dimensional stability — Part 2: Plastic and rubber sheets for roof waterproofing.*
- 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. Bitumen sheets for roof waterproofing. Determination of shear resistance of joints*
- BS EN 12691 : 2006 *Flexible sheets for waterproofing — Bitumen, plastic and rubber sheets for roof waterproofing — Determination of resistance to impact*
- BS EN 13501-5 : 2016 *Fire classification of construction products and building elements — Classification using data from external fire exposure to roofs tests*
- EN 12730 : 2015 *Flexible sheets for waterproofing — Bitumen, plastic and rubber sheets for roof waterproofing — Determination of resistance to static loading*
- EN 13501-1 : 2018 *Fire classification of construction product 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*
- DD CEN/TS 1187 : 2012 *Test methods for external fire exposure to roofs*
- MOAT 64 : 2001 *UEAtc Technical Guide for the Assessment of Roof Waterproofing Systems made of Reinforced APP or SBS Polymer Modified Bitumen Sheets*

## Conditions of Certificate

### Conditions

1 This Certificate:

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

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

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