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Agrément Certificate

08/4586

Product Sheet 1

### FIBERTITE SINGLE-PLY ROOFING MEMBRANES

### FIBERTITE ROOFING MEMBRANES

This Agrément Certificate Product Sheet<sup>(1)</sup> relates to FiberTite Roofing Membranes, a range of polyester-reinforced KEE alloy single-layer waterproofing membranes for use on limited access roofs.

(1) Hereinafter referred to as 'Certificate'.

#### 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 products and joints between them, when completely sealed and consolidated, will resist the passage of moisture to the interior of a building (see section 6).

**Properties in relation to fire** — the products will enable a roof to be unrestricted under the Building Regulations (see section 7).

**Resistance to wind uplift** — the products will resist the effects of any wind suction likely to occur in practice (see section 8).

**Resistance to foot traffic** — the products will accept, without damage, the limited foot traffic and loads associated with installation and maintenance (see section 9).

**Durability** — under normal service conditions, the products will provide a durable waterproof covering with a service life in excess of 25 years (see section 11).

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: 21 August 2014

Originally certificated on 14 October 2008

Simon Wroe  
Head of Approvals — Materials

Claire Curtis-Thomas  
Chief Executive

*The BBA is a UKAS accredited certification body — Number 113. The schedule of the current scope of accreditation for product certification is available in pdf format via the UKAS link on the BBA website at [www.bbacerts.co.uk](http://www.bbacerts.co.uk).*

*Readers are advised to check the validity and latest issue number of this Agrément Certificate by either referring to the BBA website or contacting the BBA direct.*

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## Regulations

In the opinion of the BBA, FiberTite Roofing 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 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)

<b>Requirement:</b>	<b>B4(2)</b>	<b>External fire spread</b>
Comment:		On suitable non-combustible substructures the use of the products will enable a roof to be unrestricted under this Requirement. See section 7 of this Certificate.
<b>Requirement:</b>	<b>C2(b)</b>	<b>Resistance to moisture</b>
Comment:		Data for water resistance on the products and joints between them indicate that they meet this Requirement. See section 6.1 of this Certificate.
<b>Regulation:</b>	<b>7</b>	<b>Materials and workmanship</b>
Comment:		The products are acceptable. See section 11 and the <i>Installation</i> part of this Certificate.



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

<b>Regulation:</b>	<b>8(1)(2)</b>	<b>Durability, workmanship and fitness of materials</b>
Comment:		The use of the products satisfies the requirements of this Regulation. See sections 10 and 11 and the <i>Installation</i> part of this Certificate.
<b>Regulation:</b>	<b>9</b>	<b>Building standards applicable to construction</b>
Standard:	2.8	Spread from neighbouring buildings
Comment:		On suitable non-combustible substructures the use of the products will be unrestricted by the requirements of clause 2.8.1 <sup>(1)(2)</sup> of this Standard. See section 7 of this Certificate.
Standard:	3.10	Precipitation
Comment:		Data examined for water resistance for the membranes, including joints, indicate that their use can enable a roof to satisfy the requirements of clauses 3.10.1 <sup>(1)(2)</sup> and 3.10.7 <sup>(1)(2)</sup> of this Standard. See section 6.1 of this Certificate.
Standard:	7.1(a)	Statement of sustainability
Comment:		The products can contribute to meeting 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 applicable to conversions</b>
Comment:		Comments made in relation to the product 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

<b>Regulation:</b>	<b>23(a)(i)(iii) (b)(i)</b>	<b>Fitness of materials and workmanship</b>
Comment:		The products are acceptable materials. See section 11 and the <i>Installation</i> part of this Certificate.
<b>Regulation:</b>	<b>28(b)</b>	<b>Resistance to moisture and weather</b>
Comment:		Data for water resistance on the products and joints between them indicate that they can enable a roof to satisfy the requirements of this Regulation. See section 6.1 of this Certificate.
<b>Regulation:</b>	<b>36(b)</b>	<b>External fire spread</b>
Comment:		On suitable non-combustible substructures the use of the products will be unrestricted by the requirements of this Regulation. See section 7 of this Certificate.

## Construction (Design and Management) Regulations 2007

## Construction (Design and Management) Regulations (Northern Ireland) 2007

Information in this Certificate may assist the client, CDM co-ordinator, designer and contractors to address their obligations under these Regulations.

See sections: 1 *Description (1.2)* and 3 *Delivery and site handling (3.2)* of this Certificate.

## Additional Information

### NHBC Standards 2014

NHBC accepts the use of FiberTite Roofing Membranes, provided they are installed, used and maintained in accordance with this Certificate, in relation to *NHBC Standards*, Chapter 7.1 *Flat roofs and balconies*.

### CE marking

The Certificate holder has taken the responsibility of CE marking the products in accordance with harmonised European Standard BS EN 13956 : 2012. An asterisk (\*) appearing in this Certificate indicates that data shown are given in the manufacturer's Declaration of Performance.

## Technical Specification

### 1 Description

1.1 FiberTite Roofing Membranes are polyester-reinforced roofing membranes coated with ketone-ethylene-ester (KEE) alloy and comprise FiberTite , FiberTite -SM and FiberTite -FB. All three are suitable for loose-laid and ballasted and fully-adhered applications, and FiberTite and Fiber SM may also be used mechanically-fastened. Fleece-backed versions of both are also available.

1.2 The nominal characteristics of the products are given in Table 1.

Table 1 *Nominal Characteristics*

Characteristic	FiberTite	FiberTite -SM	FiberTite -FB
Thickness (mm)	0.9	1.2	1.0
Mass per unit area (kg·m <sup>-2</sup> )	1.2	1.3	1.5
Width (m) <sup>(1)</sup>	0.71, 0.94, 1.42, 1.88	0.71, 0.94, 1.42, 1.88	1.37, 1.83
Length (m) <sup>(1)</sup>	Up to 30.5	Up to 30.5	Up to 30.5
Tensile strength* (N·50 mm <sup>-1</sup> )	≥ 2100	≥ 2100	≥ 2100
Elongation* (%)	≥ 15	≥ 15	≥ 50
Tear strength* (N)	≥ 110	≥ 110	≥ 110
Low temperature flexibility*(°C)	≤ -20	≤ -20	≤ -20
Watertightness*	Pass	Pass	Pass

(1) Other lengths and widths are available by special order.

1.3 Ancillary items necessary for installation of the products and included in this assessment are:

- FTR-190 — a solvent-based adhesive, applied to membrane and substrate, for use in detail work for non-fleece backed membranes
- FTR-290 — a solvent-based adhesive, applied to the substrate, for use with fleece-backed membranes in fully-adhered applications
- FTR-390 — a non-solvent, asphalt and butyl water-borne adhesive for use with fleece-backed membranes in fully-adhered applications
- FTR-490 — a water-based, polymeric adhesive, applied to the substrate, for use with fleece-backed membranes in fully-adhered applications
- FTR-SP60 — 60 mm diameter, barbed stress plates for use in mechanically-fastened applications.

1.4 Other items or components which may be used with the membranes, but which are outside the scope of this Certificate, are:

- FTR-Clad — Fiberclad coated metal for use in perimeter and edge detailing applications
- FTR-Detail — unreinforced FiberTite membrane for use in welded detailing applications
- FTR-Boot — a universal internal and external prefabricated pipe boot of diameter 20-150 mm

- FTR-Corner — a universal prefabricated corner
- FTR-Walkway/FTR-Protection Pads — a KEE-compatible walkway protection roll and individual protection pads.

## 2 Manufacture

2.1 FiberTite Roofing Membranes are manufactured by coating specially primed polyester reinforced fabrics with a KEE alloy. For the fleece-backed product, a non-woven polyester fleece is laminated to the underside of the membrane.

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 being operated by the manufacturer are being maintained.

2.3 The products are manufactured in the USA.

## 3 Delivery and site handling

3.1 The products are delivered to site in rolls with cardboard cores. The rolls are wrapped in a polythene sleeve bearing the product name, thickness, manufacturer’s name and the BBA logo incorporating the number of this Certificate.

3.2 Hazard classifications (where applicable) under *The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (CHIP4)/Classification, Labelling and Packaging of Substances and Mixtures (CLP) Regulation) 2009* and container sizes for ancillary items are as shown in Table 2. Products bear the appropriate hazard warning where required.

Table 2 Flashpoints and hazard classifications

Product	Container size (kg)	Flashpoint (°C)	Classification
FTR-190	5 and 22	-18	Highly flammable, Irritant
FTR-290	22	N/A	Harmful
FTR-390	22	N/A	N/A
FTR-490	12	N/A	N/A

## Assessment and Technical Investigations

The following is a summary of the assessment and technical investigations carried out on FiberTite Roofing Membranes.

### Design Considerations

#### 4 General

4.1 FiberTite Roofing Membranes are satisfactory for use as:

- fully-adhered waterproofing layers, mechanically fixed at perimeters and upstands, on flat and pitched roofs with limited access
- mechanically-fixed waterproofing layers on flat roofs with limited access
- loose-laid coverings on flat roofs with limited access (eg inverted roofs and roof gardens), mechanically fixed at perimeters and upstands and ballasted with gravel or any other material such as paving slabs on paving supports approved by the manufacturer.

4.2 Limited access roofs are defined for the purpose of this Certificate as those roofs subjected only to pedestrian traffic for the maintenance of the roof covering and cleaning of gutters etc. Where traffic in excess of this is anticipated, special precautions, such as additional protection to the membrane, must be taken.

4.3 Flat roofs are defined for the purpose of this Certificate as those roofs having a minimum finished fall of 1:80. For design purposes, twice the minimum finished fall should be assumed, unless a detailed analysis of the roof is available, including overall and local deflection, direction of falls etc. Pitched roofs are defined as those having falls greater than 1:6.

4.4 Decks to which the products are to be applied must comply with the relevant requirements of BS 6229 : 2003, BS 8217 : 2005 and, where appropriate, *NHBC Standards* 2014, Chapter 7.1.

4.5 Insulation systems or materials used in conjunction with the products must be approved by the Certificate holder and must be either:

- as described in the relevant clauses of BS 8217 : 2005, or
- the subject of a current BBA Certificate and be used in accordance with, and within the limitations of, that Certificate.

4.6 Dead loads on garden roofs can dramatically increase if the drains become partially or completely blocked, causing waterlogging of the drainage soil layers. Gravel guards should be used on rainwater outlets and these should be inspected annually.

4.7 Contact with bituminous, coal tar and oil-based products must be avoided as the membranes are not compatible with lower grades of bitumen. If contact with such products is likely, a separating layer should be interposed before installing the waterproof sheet. Where necessary, the advice of the Certificate holder should be sought.

## 5 Practicability of installation

Installation must only be carried out by trained and approved installers.

## 6 Weathertightness



6.1 Data confirm that the membranes and joints between them, when completely sealed and consolidated, will adequately resist the passage of moisture to the inside of a building and so meet the requirements of the national Building Regulations:

- **England and Wales** — Approved Document C, Requirement C2(b), Section 6
- **Scotland** — Mandatory Standard 3.10, clauses 3.10.1<sup>(1)(2)</sup> and 3.10.7<sup>(1)(2)</sup>
- (1) Technical Handbook (Domestic).
- (2) Technical Handbook (Non-Domestic)
- **Northern Ireland** — Regulation 28(b).

6.2 The products are impervious to water and when used as described will achieve a weathertight roof capable of accepting minor structural movement without damage.

## 7 Properties in relation to fire



7.1 The following systems will be unrestricted:

- a 19 mm plywood deck, one 50 mm thick layer of polyisocyanurate (PIR) insulation board with a glassfibre tissue facing and a layer of fully-adhered 1.1 mm FiberTite FTR-FB
- a 19 mm plywood deck, one 50 mm thick layer of polyisocyanurate (PIR) insulation board with a foil facing and a layer of 0.9 mm FiberTite FTR fixed using a mechanically-attached system.

7.2 The products, when used in protected or inverted roof specifications, including an organic covering listed in the Annex of Commission Decision 2000/553/EC, can be considered to be unrestricted under the national Requirements.

7.3 In the opinion of the BBA, a roof garden incorporating the products covered with a drainage layer of gravel 100 mm thick and a soil layer of minimum 300 mm thick will be unrestricted.

7.4 In the opinion of the BBA, when used in irrigated roof gardens, the use of the products will be unrestricted under the national Building Regulations:

- **England and Wales** — Requirement B4(2), Section 6
- **Scotland** — Mandatory Standard 2.8, clause 2.8.1<sup>(1)(2)</sup>
- (1) Technical Handbook (Domestic).
- (2) Technical Handbook (Non-Domestic)
- **Northern Ireland** — Regulation 36(b).

7.5 The designation of other specifications (eg when used on combustible substrates) should be confirmed by:

- **England and Wales** — test or assessment in accordance with Approved Document B, Appendix A, clause A1
- **Scotland** — test to conform to Mandatory Standard 2.8, clause 2.8.1<sup>(1)(2)</sup>
- (1) Technical Handbook (Domestic).
- (2) Technical Handbook (Non-Domestic)
- **Northern Ireland** — test or assessment carried out by a UKAS-accredited laboratory or an independent consultant with appropriate experience.

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

## 8 Resistance to wind uplift

8.1 The adhesion of a fully-adhered system to a substrate will normally be limited by the cohesive strength of the substrate. Tests indicate that on substrates with high cohesive strength the adhesion of the products is sufficient to resist the effect of wind suction, thermal suction or minor structural movements occurring in practice. However, in areas of high wind exposure, consideration should be given to the use of additional fixings.

8.2 Where the membrane is fully adhered to insulation boards, the resistance to wind uplift will be dependent on the cohesive strength of the insulation and the method by which it is secured to the roof deck. This should be taken into account when selecting insulation material.

8.3 The resistance to wind uplift of the membrane is provided by mechanical fasteners secured to the deck and passing through the membrane. The number of fixings will depend on a number of factors, including:

- wind uplift forces to be resisted
- pull-out strength of fasteners
- elastic limit of the membrane
- appropriate safety factors.

8.4 The number of fixings should be established from calculation of wind uplift forces in accordance with BS EN 1991-1-4 : 2005 and its UK National Annex.

8.5 When used in a loose-laid and ballasted system, the precise ballast requirements should be calculated in accordance with the relevant parts of BS 6399-2 : 1997, but should be a minimum of 50 mm (20 to 40 grade gravel). The use of concrete slabs on suitable supports should be considered in areas of high wind exposure and the advice of the Certificate holder should be sought.

8.6 The soil used in roof gardens should not be of a type that will be removed or become delocalised by wind scour experienced on site.

8.7 It should be recognised that the type of plants used in a roof garden could significantly affect the expected wind loads likely to be experienced in service.

## 9 Resistance to foot traffic

9.1 Data indicate that the membranes can withstand, without damage, the limited foot traffic and light concentrated loads associated with installation and maintenance. Where traffic in excess of this is envisaged, the use of FTR-Walkway/FTR-Protection Pads should be considered, and the advice of the Certificate holder should be sought. Reasonable care should be taken to avoid puncture by sharp objects or concentrated loads.

9.2 A roof garden may be regarded as suitable protection for the underlying membrane.

## 10 Maintenance



10.1 Roofs covered with the products, especially those without ballast, should be inspected annually in accordance with good practice for roof waterproofing systems, to ensure continued security and performance.

10.2 It is imperative that the drainage system of a roof garden is designed correctly, and provision made for access for maintenance purposes. Inspection of drains should be carried out regularly to avoid waterlogging of the garden and a consequent increase in dead weight load.

## 11 Durability



FiberTite has been in use in the USA since 1979. Accelerated weathering tests and performance in use confirm that satisfactory retention of physical properties is achieved. All available evidence indicates that the products should have a service life in excess of 25 years.

## Installation

### 12 General

12.1 Installation of FiberTite Roofing Membranes must be carried out by trained and approved installers working in accordance with the Certificate holder's instructions, BS 8000-4 : 1989 and this Certificate.

12.2 Conditions on site should be those for normal roof waterproofing work. Deck surfaces must be dry, clean and free from sharp projections such as nail heads and concrete nibs.

12.3 When the products are to be laid on a rough deck, a loose-laid, non-woven geotextile fleece (minimum 200 g·m<sup>-2</sup>) should be laid first.

12.4 Installation should not be carried out during wet weather (eg rain, fog or snow), nor when the temperature is below 0°C. Special precautions in accordance with the Certificate holder's instructions should be taken if the fully-adhered system is to be installed at temperatures below 5°C, due to the risk of condensation contaminating the bonding adhesive.

12.5 The membranes must be mechanically fixed around perimeters of the roof at 150 mm maximum centres or secured by similar or better means.

12.6 The membranes must be unrolled into position and allowed to adapt prior to fixing and/or lap jointing. Care must be taken to avoid ripples or folds in the sheets.

12.7 Membranes may be prefabricated prior to application to reduce the amount of on-site lap jointing.

## 13 Procedure

### Loose-laid and ballasted applications

13.1 The membrane is unrolled onto the substrate and loose-laid with 125 mm side laps welded using hot-air welding as described in section 14.

13.2 The ends of the rolls should be staggered to prevent adjacent laps coinciding.

13.3 The products should be covered by at least a 50 mm depth of 20 mm to 40 mm grade well-rounded gravel. If crushed stone ballast is used, a protective mat of non-woven polyester fleece should be laid between the membrane and the aggregate. In areas of high wind exposure, paving slabs may be considered for use for a distance of one metre from the perimeter to prevent damage to the products from wind uplift.

13.4 An alternative method of ballasting is by use of concrete paving, maximum size 600 mm by 600 mm by 50 mm thick. A non-woven polyester fleece (minimum 200 g·m<sup>-2</sup>) must be laid between the membrane and the supports.

13.5 When using a loose-laid application, normal account should be taken in the design of the deck of the extra dead load resulting from the weight of the aggregate.

13.6 When the products are to be laid directly onto a concrete deck, a separating layer of 12 mm thick wood fibreboard or a non-woven polyester fleece (minimum 200 g·m<sup>-2</sup>) must first be laid on the deck. This is not required if a minimum thickness of 19 mm of insulation is laid immediately under the membrane. When used as the waterproofing layer in a roof designed to the inverted roof concept, a separating layer of non-woven polyester fleece must be laid between the concrete deck and the membrane.

13.7 For roof garden applications, the Certificate holder's instructions should be strictly followed.

### Fully-adhered applications

13.8 All insulation boards must be attached to the structural deck in accordance with the board manufacturer's instructions. The method of attachment must be adequate to provide resistance to wind uplift forces as defined in BS EN 1991-1-4 : 2005 and its UK National Annex.

13.9 When used as a fully-bonded system, the resistance to wind uplift will be limited by the cohesive strength of the insulation and the method of attachment. These factors should be taken into account when selecting the insulation material. Faced polyurethane should be mechanically fixed to prevent bowing.

13.10 The fully-bonded application may not be used directly onto insulation materials that will be adversely affected by the solvent in the adhesive (eg polystyrene). The width of the membrane should not exceed 6.1 m for this type of application.

13.11 When used over expansion joints, bridging strips unbounded for a minimum of 250 mm should be installed over all joints.

13.12 When installing the non-fleece-backed membranes, FTR-190 should be applied to both the substrate and the product by means of a roller or spray at an approximate application rate of 0.5 litres per square metre (the exact rate is dependent on the porosity of the substrate) on both surfaces. When the adhesive has become tacky, the membrane should be applied to the substrate and rolled to ensure a full bond and that air has not been trapped beneath the membrane.

13.13 When installing the fleece-backed membrane, FTR-290, FTR-390 or FTR-490 is applied to the substrate by roller or spray at an approximate rate of 0.5 litres per square metre (the exact rate is dependent on the porosity of the substrate). The membrane should be applied to the substrate whilst the adhesive is still wet and rolled to ensure a full bond and that air has not been trapped beneath the membrane.

13.14 Surplus adhesive must be removed from the joint areas prior to welding. Lap welding should be completed as described in section 14.

### **Mechanically-fixed applications**

13.15 The membrane should be unrolled over the substrate, taking care to avoid any folds or ripples. Edge overlaps to adjacent sheets must be a minimum of 125 mm. End laps for the membrane should also be a minimum of 125 mm.

13.16 The position of the fixings, and the number required, will depend upon the type used, the type of deck and the wind uplift forces to be resisted.

13.17 The first sheet is fixed to the substrate with the fixing plates positioned 10 mm from the sheet edge. The adjacent sheet should be laid over the first sheet and the lap jointed by welding along the final 40 mm as described in section 13.

13.18 Perimeter fixings at sheet edges should be waterproofed using 150 mm wide strips of the membrane welded to the membrane as described in section 14.

13.19 A range of prefabricated accessories is available from the Certificate holder. Advice on the selection of accessories should be sought from the Certificate holder.

## **14 Details**

### **Hot air welding**

14.1 Welding may be achieved by automatic or hand-operated hot air welding machines in accordance with the manufacturer's instructions. Care must be taken to avoid wrinkles, ripples or folds.

14.2 Lap joint areas on both sheets must be cleaned to a minimum width of 50 mm and dried.

14.3 The weld joint must be a minimum width of 38 mm. When using a hand-held welding machine, the seam must be rolled immediately using a silicone rubber or steel seam roller, to ensure an even bond.

14.4 On completion of the weld, the seam should be tested by running a metal probe down the junction to check for continuity.

### **Flashing**

14.5 All flashing should be fully adhered using FTR-190 in accordance with the Certificate holder's instructions.

14.6 Corner details should be completed with FTR-Corners.

14.7 For specific flashing requirements, the advice of the Certificate holder should be sought.

## **15 Repair**

Any damage can be repaired by cleaning the affected area and applying a patch of the product in accordance with section 14.

## **Technical Investigations**

### **16 Tests**

16.1 An assessment was made of data to EN 13956 : 2012 in relation to:

- thickness
- width
- mass per unit area
- tensile strength and elongation
- dimensional stability
- resistance to impact
- resistance to static loading
- watertightness
- tear resistance
- joint peel resistance
- joint shear resistance
- low temperature foldability.



16.2 Resistance to UV ageing and heat ageing tests were conducted in order to assess durability.

## 17 Investigations

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

17.2 Existing data on the fire performance of the products and resistance to root penetration were assessed.

17.3 An assessment of the durability of the products was made based on results of tests conducted on unaged and naturally-aged material taken from a 10 year old existing site in the USA.

## Bibliography

BS 6229 : 2003 *Flat roofs with continuously supported coverings — Code of practice*

BS 8000-4 1989 *Workmanship on building sites – Code of practice for waterproofing*

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

BS EN 1991-1-4 : 2005 *Eurocode 1: Actions on structures — General actions — Wind actions*

NA to BS EN 1991-1-4 : 2005 UK National Annex to *Eurocode 1: Actions on structures — General actions — Wind actions*

BS EN 13051-5 : 2005 *Fire classification of construction products and building elements — Classification using data from external fire exposure to roofs tests*

BS EN 13956 : 2012 *Flexible sheets for waterproofing — Plastic and rubber sheets for roof waterproofing — Definitions and characteristics*

## Conditions of Certification

### 18 Conditions

18.1 This Certificate:

- relates only to the product/system 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.

18.2 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.

18.3 This Certificate will remain valid for an unlimited period provided that the product/system 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.

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

18.5 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/system or any other product/system
- the right of the Certificate holder to manufacture, supply, install, maintain or market the product/system
- actual installations of the product/system, including their nature, design, methods, performance, workmanship and maintenance
- any works and constructions in which the product/system is installed, including their nature, design, methods, performance, workmanship and maintenance
- any loss or damage, including personal injury, howsoever caused by the product/system, including its manufacture, supply, installation, use, maintenance and removal.
- any claims by the manufacturer relating to CE marking.

18.6 Any information relating to the manufacture, supply, installation, use, maintenance and removal of this product/system which is contained or referred to in this Certificate is the minimum required to be met when the product/system 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.