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Agrément Certificate

89/2216

Product Sheet 2

FIRESTONE ROOF WATERPROOFING MEMBRANES

FIRESTONE RUBBERCOVER EPDM SYSTEM

This Agrément Certificate Product Sheet⁽¹⁾ relates to Firestone RubberCover EPDM System, for use as a single-layer roof waterproofing membrane in fully adhered systems on flat roofs of up to 100 m² plan area with limited access in domestic applications.

(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 system, including joints, will resist the passage of moisture to the interior of a building (see section 6).

Properties in relation to fire — the system may contribute to a roof being unrestricted under the national Building Regulations (see section 7).

Resistance to wind uplift — the system will resist the effects of any likely wind suction acting on the roof (see section 8).

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

Durability — under normal service conditions, the system will provide a durable waterproof covering with a service life of at least 30 years (see section 11).

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 Third issue: 3 February 2022

Originally certificated on 22 February 2016

Hardy Giesler
Chief Executive Officer

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

Any photographs are for illustrative purposes only, do not constitute advice and should not be relied upon.

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Regulations

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



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

Requirement:	B4(2)	External fire spread
Comment:		On suitable substructures, the system may enable a roof to be unrestricted under the requirements of this Regulation. See section 7 of this Certificate.
Requirement:	C2(b)	Resistance to moisture
Comment:		The system, including joints, will enable a roof to satisfy this Requirement. See section 6 of this Certificate.
Requirement:	7(1)	Materials and workmanship
Comment:		The system is acceptable. See section 11 and the <i>Installation</i> part of this Certificate.



The Building (Scotland) Regulations 2004 (as amended)

Regulation:	8(1)(2)	Durability, workmanship and fitness of materials
Comment:		The use of the system satisfies the requirements of this Regulation. See sections 10.1 and 11 and the <i>Installation</i> part of this Certificate.
Regulation:	9	Building standards applicable to construction
Standard:	2.8	Spread from neighbouring buildings
Comment:		When used with a suitable substructure, the systems may enable a roof to be unrestricted under clause 2.8.1 ⁽¹⁾⁽²⁾ of this Standard. See section 7 of this Certificate.
Standard:	3.10	Precipitation
Comment:		The system, including joints, will enable a roof to satisfy the requirements of this Standard with references to clauses 3.10.1 ⁽¹⁾⁽²⁾ and 3.10.7 ⁽¹⁾⁽²⁾ . See section 6 of this Certificate.
Standard:	7.1(a)	Statement of sustainability
Comment:		The system can contribute to 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.
Regulation:	12	Building standards applicable to conversions
Comment:		Comments in relation to the system under Regulation 9, Standards 1 to 6 also apply to this Regulation, with reference to clause 0.12.1 ⁽¹⁾⁽²⁾ and Schedule 6 ⁽¹⁾⁽²⁾ .

(1) Technical Handbook (Domestic).

(2) Technical Handbook (Non-Domestic).



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

Regulation:	23(a)(i)	Fitness of materials and workmanship
Comment:	(iii)(b)(i)	The system is acceptable. See section 11 and the <i>Installation</i> part of this Certificate.
Regulation:	28(b)	Resistance to moisture and weather
Comment:		The system, including joints, can enable a roof to satisfy the requirements of this Regulation. See section 6 of this Certificate.

Regulation:	36(b)	External fire spread
Comment:	When used on suitable substructures, the system may enable a roof to be unrestricted under this Requirement. See section 7 of this Certificate.	

Construction (Design and Management) Regulations 2015 Construction (Design and Management) Regulations (Northern Ireland) 2016

Information in this Certificate may assist the client, designer (including Principal Designer) and contractor (including Principal Contractor) to address their obligations under these Regulations.

See sections: 1 *Description* (1.2) and 3 *Delivery and site handling* (3.3) of this Certificate.

Additional Information

NHBC Standards 2022

In the opinion of the BBA, Firestone RubberCover EPDM 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*.

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

CE marking

The Certificate holder has taken the responsibility of CE marking the membrane, in accordance with harmonised European Standard BS EN 13956 : 2012.

Technical Specification

1 Description

1.1 The Firestone RubberCover EPDM System is a non-reinforced black synthetic ethylene-propylene-diene terpolymer (EPDM) membrane with the nominal characteristics given in Table 1.

Table 1 Nominal characteristics

Characteristic (unit)	RubberCover Membrane
Thickness (mm)	1.1
Roll Width (m)	3.05, 4.57, 6.10
Length (m)	7.62
Mass per unit area (kg·m ⁻²)	1.35
Tensile strength (N·mm ⁻²)	≥ 7
Elongation (%)	≥ 300
Tear resistance (N)	≥ 40
Dimensional stability (%)	≤ 0.5
Foldability at low temperature (°C)	≤ -45
Resistance to impact(mm)	
soft substrate	≥ 1700
hard substrate	≥ 200
Resistance to static load (kg)	
hard substrate	≥ 20

1.2 Other products for use with the systems are:

- RubberCover Bonding Adhesive BA 2012 — a roller-applied, solvent-based contact adhesive for bonding the membrane to approved substrates
- RubberCover Water-Based Bonding Adhesive — a water-based adhesive for bonding the membrane to approved substrates
- QuickSeam Cover Strip — a semi-cured EPDM strip, laminated to QuickSeam Tape, to cover and seal butt-jointed membranes
- QuickSeam Corner Flashing — a circular self-adhesive uncured EPDM flashing for use at corners
- QuickSeam SA Flashing — a self-adhesive cured EPDM strip for use as flashing for kerbs, outlets, in gutters and for repairs
- QuickSeam FormFlash 450 mm — a self-adhesive uncured EPDM strip for use as flashing for kerbs, outlets and repairs.

1.3 Ancillary items for use with the systems, but which are outside the scope of this Certificate, are:

- QuickPrime Plus Primer — for preparing the system or other compatible substrates to receive QuickSeam products
- QuickSeam Universal Pipe Flashing — a prefabricated pipe boot for flashing circular roof penetrations.

2 Manufacture

2.1 Firestone RubberCover EPDM membrane is manufactured by blending EPDM, processing oils and other additives. The sheets are produced by calendering or extruding and vulcanising.

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

- agreed with the manufacturer the quality control procedures and product testing to be undertaken
- assessed and agreed the quality control operated over batches of incoming materials
- monitored the production process and verified that it is in accordance with the documented process
- evaluated the process for management of nonconformities
- checked that equipment has been properly tested and calibrated
- undertaken to carry out the above measures on a regular basis through a surveillance process, to verify that the specifications and quality control operated by the manufacturer are being maintained.

2.3 The management system of Firestone Building Products EMEA has been assessed and registered as meeting the requirements of BS EN ISO 9001 : 2015 and BS EN ISO 14001 : 2015 by Lloyds Register (Certificate identity number 10396219) and EAGLE Registrations Inc (Certificate number 5834), respectively.

3 Delivery and site handling

3.1 The membrane is delivered to site in rolls, each wrapped in a polythylene sleeve bearing the product name, thickness, Certificate holder's name and the BBA logo incorporating the number of this Certificate.

3.2 EPDM membrane is not subject to any particular storage conditions but the Firestone QuickSeam products should be stored in a clean, dry position and in temperatures between 15 and 25°C. QuickSeam FormFlash, QuickSeam Cover Strip and QuickSeam Flashing cures gradually and should not be stored for more than 12 months. As curing occurs, the products become less flexible; this does not affect the waterproofing characteristics but it becomes more difficult to form details.

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

3.4 Firestone RubberCover Bonding Adhesive BA-2012 and Firestone Modular Water-Based Bonding Adhesive should be stored between 15 and 25°C. Firestone Modular Water-Based Bonding Adhesive should not be allowed to freeze.

3.5 The shelf-life of ancillary items is given in Table 2.

Product	Shelf-life (months)
RubberCover Water Based Bonding Adhesive	12
RubberCover Bonding Adhesive BA-2012	12
QuickPrime Plus Primer	12
QuickSeam Pipe Flashing	12
QuickSeam SA Flashing	12
QuickSeam Cover Strip	12
QuickSeam Corner Flashing	12
QuickSeam FormFlash 450 mm	12

Assessment and Technical Investigations

The following is a summary of the assessment and technical investigations carried out on Firestone RubberCover EPDM System.

Design Considerations

4 General

4.1 The Firestone RubberCover EPDM System is satisfactory for use in fully adhered systems on flat roofs with limited access in residential and domestic applications.

4.2 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 2022*, Chapter 7.1.

4.3 Limited access roofs are defined for the purpose of this Certificate as those subjected only to pedestrian traffic for maintenance of the roof covering, cleaning of gutters, etc. Where traffic in excess of this is envisaged, additional protection to the system must be provided (see section 9).

4.4 Flat roofs are defined for the purpose of this Certificate as those having a minimum finished fall of 1:80. When designing flat roofs, twice the minimum finished fall should be assumed, unless a detailed analysis of the roof is available, including, for example, overall and local deflection and direction of falls.

4.5 Insulation systems and materials to be used in conjunction with the system must be in accordance with the Certificate holder's instructions and be either:

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

4.6 Contact with bituminous, coal tar and oil-based products must be avoided as the system is incompatible with lower grades of bitumen. If contact with such products is likely, a separating layer must be interposed before installing the waterproof sheet. Where doubt arises, the advice of the Certificate holder should be sought.

4.7 The NHBC requires that the waterproofing membranes, once installed, be inspected in accordance with of NHBC Standards 2022, Chapter 7.1, Clause 7.1.12, including the use of an appropriate integrity test, where required. Any damage to the membrane is repaired in accordance with section 15 of this Certificate and reinspected.

5 Practicability of installation

The system should only be installed by installers who have been trained by the Certificate holder or the Certificate holder's authorised representatives.

6 Weathertightness



The system, including joints, when completely sealed and consolidated, will adequately resist the passage of moisture into the interior of a building and enable a roof to comply with the requirements of the national Building Regulations.

7 Properties in relation to fire



7.1 A system comprising an 18 mm plywood substrate, a 250 µm polyethylene vapour control layer, a mechanically fastened 100 mm glass-faced polyisocyanurate foam insulation board and a layer of RubberCover 1.1 bonded with RubberCover Water-based Bonding Adhesive, when tested flat to ENV 1187 : 2002, achieved a B_{ROOF}(t4) classification in accordance with BS EN 13501-5 : 2005⁽¹⁾ and so is unrestricted with respect to proximity to a boundary by the documents supporting the national Building Regulations.

(1) Test report reference WF 327780 and classification report 328652, issued by Warrington Fire, the report is available from the Certificate holder on request.

7.2 The system, when used in protected specifications, including an inorganic covering listed in the Annex of Commission Decision 2000/553/EC, can also be considered to be unrestricted under the national Building Regulations.

7.3 The designation of other specifications should be confirmed by reference to the requirements of the documents supporting the national Building Regulations.

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 system is sufficient to resist the effect of wind suction, thermal cycling or minor structural movements occurring in practice.

8.2 Where the system 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 the insulation material is selected.

9 Resistance to mechanical damage

9.1 The system can accept the limited foot traffic and light concentrated loads associated with installation and maintenance. Reasonable care should be taken to avoid puncture by sharp objects or concentrated loads. Where traffic in excess of this is envisaged, such as for maintenance of lift equipment, a walkway should be provided, for example, using concrete slabs supported on bearing pads.

9.2 The system is impervious to water and when used as described will provide a weathertight roof capable of accepting minor structural movement without damage.

10 Maintenance



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

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

11 Durability



Under normal service conditions, the system will provide a durable roof waterproofing with a service life of at least 30 years.

Installation

12 General

12.1 Installation of the Firestone RubberCover EPDM System must be carried out by installers trained and approved by the Certificate holder in accordance with BS 6229: 2018, BS 8000-0 : 2014, BS 8000-4 : 1989, the SPRA (Single Ply Roofing Association) Design Guide 2020, the Certificate holder's instructions 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 system is to be laid over a rough substrate, an appropriate isolating material, cover board or insulation board must be installed 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 system is to be installed at temperatures below 5°C due to the risk of condensation contaminating the bonding adhesive.

12.5 The Water-Based Bonding Adhesive should not be applied if there is a possibility of freezing temperatures within 48 hours after application.

12.6 The membrane should be unrolled into position and allowed to acclimatise for 30 minutes prior to fixing and/or lap jointing. Care must be taken to avoid ripples or folds in the sheets.

13 Procedure

13.1 All insulation boards must be attached using an appropriate adhesive or mechanical method according to the type of air and vapour control layer used in the system. The method of attachment must be adequate to provide resistance to wind uplift forces as defined in BS EN 1991-1-4 : 2005. When installed over glass-fibre, mineral wool-based or polystyrene insulations, a suitable separation layer is either mechanically fastened or bonded over the insulation prior to application of the waterproofing.

13.2 The resistance to wind uplift will be limited by the cohesive strength of the insulation and method of attachment. These factors should be taken into account when selecting the insulation material. Faced polyurethane should be mechanically fixed to prevent bowing.

13.3 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 system should not exceed 6.1 metres for this type of application.

13.4 Alternatively, a layer of RubberCover Water-Based Bonding Adhesive should be applied to the approved substrate at an application rate of 1.47 to 2.45 metres square per litre. The membrane should be applied to the adhesive while wet and rolled to ensure a full bond and that no air has been trapped beneath the system.

13.5 Alternatively, a layer of RubberCover Bonding Adhesive BA-2012 should be roller- or spray-applied to both the substrate and the membrane at an approximate rate of 0.3 to 0.43 litres per square metre. When the adhesive has become touch dry, the membrane should be applied to the substrate and compressed with a stiff brush to ensure a full bond and that air has not been trapped beneath the system.

14 Details

Seaming procedure — QuickSeam Cover Strip

14.1 Where jointing is necessary, the membranes should be butted together with a maximum gap of 5 mm. The area must be cleaned with QuickPrime Plus Primer (alternatives should not be used). QuickSeam Cover Strip is positioned centrally over the joint and unrolled. The seam should be rolled with a silicone roller. Care must be taken to avoid ripples or folds.

Outside corner detail — QuickSeam Corner Flashing

14.2 Where an external corner flashing is necessary, the Firestone RubberCover EPDM membrane should be cut to accommodate the corner of the kerb/wall. The area must be cleaned with QuickPrime Plus Primer (alternatives should not be used). The resultant area should be flashed with QuickSeam SA Flashing. The base of the corner should be cleaned with QuickPrime Plus Primer and QuickSeam Corner Flashing applied and hand moulded to accommodate the angle changes at the base of the corner. The completed detail should be rolled with a silicone roller. Care must be taken to avoid ripples or folds.

Folded corner detail — QuickSeam Corner Flashing

14.3 Where an inside corner flashing is necessary, the Firestone RubberCover EPDM membrane should be folded into a 'pig-ear'. The contact area of the pig-ear should be cleaned (both mating surfaces) with QuickPrime Plus Primer. The pig-ear must then be adhered to the upstand.

Circular pipe flashing

14.4 Circular pipes of 25 to 150 mm diameter are flashed using a pre-moulded QuickSeam Pipe Flashing. The flashing should be cut according to the sizing rings to suit the pipe diameter. The horizontal roof area around the base of the pipe should be prepared with QuickPrime Plus Primer and allowed to become touch dry. QuickSeam Pipe Flashing is installed over the pipe and with the base flange flush to the roof surface, removing the release paper to mate the QuickSeam adhesive underside to the primed roof area. The bond is consolidated by using a silicone roller to remove any trapped air. The detail is finished at the top edge with a bead of waterproof mastic. A stainless steel strap is used to secure the pipe.

Internal rainwater outlet

14.5 With the Firestone RubberCover EPDM system already adhered to the substrate, a pre-fabricated rainwater outlet insert is installed. It should be ensured that connection to the roof drainage system is secure and, using appropriate fixings, it is fastened to the structure. The flange of the outlet insert and the surrounding area is primed using QuickPrime Plus Primer. QuickSeam SA Flashing is installed, sized minimum 75 mm larger than the outlet insert flange in each direction. QuickSeam SA Flashing is rolled with a silicone roller to consolidate the bond and remove any trapped air. A central area is cut away from the QuickSeam SA Flashing directly over the outlet. A suitable push-fit leaf guard is installed upon completion. The Certificate holder's advice should be sought regarding compatible rainwater outlet inserts.

Horizontal or through-wall outlet flashing

14.6 With the Firestone RubberCover EPDM system already adhered to the substrate, a prefabricated rainwater outlet insert is installed. It should be ensured that connection to the roof drainage system is secure and, using appropriate fixings, it is fastened to the structure. The flange of the outlet insert and the surrounding area is primed using QuickPrime Plus Primer. The 450 mm QuickSeam FormFlash is installed, sized minimum 75 mm larger than the outlet insert flange in each direction. QuickSeam FormFlash is rolled with a silicone roller to consolidate the bond and remove any trapped air. A central area of QuickSeam FormFlash is cut away from the outlet opening. The Certificate holder's advice should be sought regarding compatible rainwater outlet inserts.

Perimeter edge trim

14.7 The Firestone RubberCover EPDM system is fully adhered over the perimeter edge. An appropriate prefabricated trim is installed to the roof edge, fastening the horizontal flange of the trim through the system and into the structure at maximum 200 mm centres using appropriate fasteners. The edge trim should be sealed by installing a strip of QuickSeam Cover Strip in conjunction with QuickPrime Plus Primer, ensuring adequate coverage of the fixings and a minimum 50 mm lap onto the Firestone RubberCover EPDM system. The Certificate holder's advice should be sought regarding compatible roof edge trims.

15 Repair

In the event of damage to the system, repairs can be carried out by cleaning the area around the damage and applying a patch of QuickSeam SA Flashing in accordance with the Certificate holder's instructions.

Technical Investigations

16 Tests

16.1 Tests on the systems were conducted and the results assessed to determine:

- thickness
- width
- mass per unit area
- water vapour transmission
- watertightness
- tensile strength/elongation
- tear strength
- low temperature flexibility
- dimensional stability
- static loading
- dynamic impact
- fatigue cycling
- peel from substrate
- wind uplift
- heat ageing
- UV ageing
- bitumen compatibility.

16.2 Existing data for QuickSeam SA Flashing and QuickSeam Cover Strip were examined in respect of:

- resistance to peel
- thickness
- dimensional stability
- resistance to tear
- low temperature flexibility
- resistance to impact
- water absorption
- tensile strength and elongation on controls and after heat ageing (24 weeks at 70°C and 24 weeks at 80°C).

17 Investigations

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

17.2 An evaluation was made of existing data on the fire performance of the products.

Bibliography

- BS 6229 : 2018 *Flat roofs with continuously supported flexible waterproof coverings — Code of practice*
- BS 8000-0 : 2014 *Workmanship on construction sites — Introduction and general principles* BS 8000-4 : 1989 *Workmanship on building sites — Code of practice for waterproofing*
- BS 8217 : 2005 *Reinforced bitumen membranes for roofing — Code of practice*
- BS EN 1991-1-1 : 2002 *Eurocode 1: Actions on structures — General actions — Densities, self-weight, imposed loads for buildings*
NA to BS EN 1991-1-1 : 2002 *UK National Annex to Eurocode 1: Actions on structures — General actions — Densities, self-weight, imposed loads for buildings*
- BS EN 1991-1-3 : 2003 + A1 : 2015 *Eurocode 1: Actions on structures — General actions — Snow loads*
NA to BS EN 1991-1-3 : 2003 + A1 : 2015 *UK National Annex to Eurocode 1: Actions on structures — General actions — Snow Loads*
- BS EN 1991-1-4 : 2005 + A1 : 2010 *Eurocode 1 : Actions on structures — General actions — Wind actions*
NA to BS EN 1991-1-4 : 2005 + A1 2010 *UK National Annex to Eurocode 1 : Actions on structures — General actions — Wind actions*
- BS EN 13501-5 : 2005 *Fire classification of construction products and building elements — Classification using data from external fire exposure to roof tests*
- BS EN 13956 : 2012 *Flexible sheets for waterproofing — Plastic and rubber sheets for roof waterproofing — Definitions and characteristics*
- BS EN ISO 9001 : 2015 *Quality Management System — Requirements*
BS EN ISO 14001 : 2015 *Environmental management systems - Requirements*
- ENV 1187 : 2002 *Test methods for external fire exposure to roofs*

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.