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Agrément Certificate

21/5879

Product Sheet 1

GEORG BÖRNER ROOF WATERPROOFING SYSTEMS

TORCH-SAFE SYSTEM

This Agrément Certificate Product Sheet⁽¹⁾ relates to the Torch-Safe System, for use as a roof waterproofing system and an air and vapour control layer (AVCL) in warm roof specifications on flat and pitched roofs with limited access.

(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 into the interior of a building (see section 6).

Condensation risk — roofs incorporating the system may adequately limit the risk of interstitial and surface condensation (see section 7).

Performance in relation to fire — the system can enable a roof to be unrestricted under the national Building Regulations (see section 8).

Resistance to wind uplift — when correctly specified, the system will resist the effects of any likely wind suction acting on the roof (see section 9).

Resistance to mechanical damage — the system will accept, without damage, the limited foot traffic and loads associated with the installation and maintenance (see section 10).

Durability — under normal service conditions, the system will provide a durable waterproof covering with a service life in excess of 35 years (see section 12).

The BBA has awarded this Certificate to the company named above for the system described herein. This system has been assessed by the BBA as being fit for its intended use provided it is installed, used and maintained as set out in this Certificate.

On behalf of the British Board of Agrément

Date of First issue: 6 April 2021

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, the Torch-Safe 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: Comment:	B4(1)	External fire spread The system is restricted by this Requirement in some circumstances. See section 8.5 of this Certificate.
Requirement: Comment:	B4(2)	External fire spread On a suitable substructure, the system can enable a roof to be unrestricted under this Requirement. See sections 8.1, 8.2, 8.3 (Wales only) and 8.4 of this Certificate.
Requirement: Comment:	C2(b)	Resistance to moisture The membranes, including joints, will enable a roof to satisfy this Requirement. See section 6 of this Certificate.
Requirement: Comment:	C2(c)	Resistance to moisture The system can contribute to enabling a roof to satisfy this Requirement. See section 7 of this Certificate.
Regulation: Comment:	7(1)	Materials and workmanship The system is acceptable. See section 12.1 and the <i>Installation</i> part of this Certificate.



The Building (Scotland) Regulations 2004 (as amended)

Regulation: Comment:	8(1)(2)	Durability, workmanship and fitness of materials The use of the system satisfies the requirements of this Regulation. See sections 11.1 and 12.1 and the <i>Installation</i> part of this Certificate.
Regulation: Standard: Comment:	9 2.6	Building standards applicable to construction Spread to neighbouring buildings The system is restricted under clause 2.6.4 ⁽¹⁾⁽²⁾ of this Standard in some circumstances. See section 8.6 of this Certificate.
Standard: Comment:	2.8	Spread from neighbouring buildings The system, when applied to a suitable substructure, can be regarded as having low vulnerability under clause 2.8.1 ⁽¹⁾⁽²⁾ of this Standard. See sections 8.1, 8.2 and 8.4 of this Certificate.
Standard: Comment:	3.10	Precipitation The membranes, including joints, will enable a roof to satisfy the requirements of this Standard, with reference to clauses 3.10.1 ⁽¹⁾ and 3.10.7 ⁽¹⁾ . See section 6 of this Certificate.
Standard: Comment:	3.15	Condensation The system will enable a roof to satisfy this Standard, with reference to clauses 3.15.1 ⁽¹⁾⁽²⁾ , 3.15.3 ⁽¹⁾⁽²⁾ , 3.15.5 ⁽¹⁾⁽²⁾ and 3.15.6 ⁽¹⁾⁽²⁾ . See section 7 of this Certificate.
Standard: Comment:	7.1(a)	Statement of sustainability 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 12.1 and the <i>Installation</i> part of this Certificate.
Regulation:	28(b)	Resistance to moisture and weather
Comment:		The membranes, including joints, can satisfy the requirements of this Regulation. See section 6 of this Certificate.
Regulation:	29	Condensation
Comment:		The system can contribute to a roof satisfying this Regulation. See section 7 of this Certificate.
Regulation:	36(b)	External fire spread
Comment:		On a suitable substructure, the use of the system can enable a roof to be unrestricted under the requirements of this Regulation. See section 8 to 8.4 of this Certificate.

Construction (Design and Management) Regulations 2015

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

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

See sections: 1 *Description* (1.3) and 3 *Delivery and site handling* (3.3) of this Certificate.

Additional Information

NHBC Standards 2021

In the opinion of the BBA, the Torch-Safe 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, 7.1 Flat roofs, terraces and balconies*.

CE marking

The Certificate holder has taken the responsibility of CE marking the membranes and AVCLs, in accordance with harmonised European Standards EN 13707 : 2013 and EN 13970 : 2004 respectively.

Technical Specification

1 Description

1.1 The Torch-Safe System is a warm roof system using a self-adhesive air and vapour control layer (AVCL) which can be safely and securely bonded to any roof deck without the use of a torch. Thermal insulation is then bonded to the VCL, followed by a polymer modified, self-adhesive underlay and a choice of high-performance torch-on capsheets. MULTIPLEX Super AL torch-on AVCL can be used as an alternative on suitable non-combustible substrates.

1.2 The Torch-Safe System comprises the following waterproofing membranes and AVCLs:

- POLY-ELAST PV 180 S4 – a torch on, elastomeric modified bitumen membrane, reinforced with polyester (180-200 g·m⁻²), with a slate finish on the upper surface and a thermofusible polyethylene film on the lower surface
- POLY-ELAST PV 250 S5 – a torch on, elastomeric modified bitumen membrane, reinforced with polyester (250 g·m⁻²), with a slate finish on the upper surface and a thermofusible polyethylene film on the lower surface
- DACO-KSO – a self-adhesive, elastomeric modified bitumen membrane, reinforced with polyester (280 g·m⁻²). The membrane has a slate finish on the upper surface and a release film on the lower surface. For use in the perimeter zone of the roof
- INTER-Stick SK 3 Extra Underlay – a self-adhesive, elastomeric modified bitumen membrane, reinforced with glass fibre (200 g·m⁻²). The membrane has a sand finish on the upper surface and a release film on the lower surface
- DACO-KSU+ Underlay – a self-adhesive, elastomeric modified bitumen membrane, reinforced with glass fibre (200 g·m⁻²). The membrane has a thermofusible polyethylene film on the upper surface and a release film on the lower surface
- DACO-KSD-B – a self-adhesive, elastomeric modified bitumen AVCL with a glass fibre/aluminium composite (200 g·m⁻²) acting as reinforcement. The membrane has a sand finish on the upper surface and a release film on the lower surface
- MULTIPLEX Super AL – a torch-on, elastomeric modified bitumen AVCL with a glass fleece/aluminium composite (60 g·m⁻²) acting as reinforcement. The membrane has a sand finish on the upper surface and a thermofusible polyethylene film on the lower surface.

1.3 The nominal characteristics of the waterproofing membranes and AVCLs are given in Tables 1 and 2 respectively.

Table 1 Nominal characteristics – waterproofing membranes

Characteristic (unit)	INTER-Stick SK 3 Extra	DACO-KSU+	POLY-ELAST PV 180 S4	POLY-ELAST PV 250 S5	DACO-KSO
Thickness (mm)	3.0	3.0	4.2	5.2	4.2
Roll width (m)	1.00	1.08	1.00	1.00	1.08
Roll length (m)	10.0	7.5	7.5	5.0	7.5
Mass per unit area (kg·m ⁻²)	4.1	4.3	5.50	7.5	6.0
Roll weight (kg)	41.0	35.0	42.0	37.5	45
Watertightness – one metre head	pass	pass	pass	pass	pass
Tensile strength (N per 50 mm)					
longitudinal	≥ 1000	≥ 1000	≥ 900	≥ 800	≥ 1000
transverse	≥ 1000	≥ 1000	≥ 600	≥ 800	≥ 1000
Elongation (%)					
longitudinal	≥ 2	≥ 2	≥ 35	≥ 35	20
transverse	≥ 2	≥ 2	≥ 35	≥ 35	25
Low temperature flexibility (°C)	≤ -15	≤ -20	≤ -25	≤ -25	≤ -25
Flow resistance (°C)	≥ 90	≥ 100	≥ 100	≥ 100	≥ 100

Table 2 Nominal characteristics – AVCLs

Characteristic (unit)	DACO-KSD-B	MULTIPLEX Super AL
Thickness (mm)	2.5	3.5
Roll width (m)	1.08	1.00
Roll length (m)	10.0	7.5
Mass per unit area (kg·m ⁻²)	3.33	5.20
Roll weight (kg)	36	39
Equivalent air layer thickness – sd (m)	≥ 1500	≥ 1500
Watertightness – one metre head	pass	pass
Tensile strength (N per 50 mm)		
longitudinal	≥ 1000	≥ 400
transverse	≥ 1000	≥ 400
Elongation (%)		
longitudinal	≥ 2	≥ 2
transverse	≥ 2	≥ 2
Low temperature flexibility (°C)	≤ -25	≤ -20
Flow resistance (°C)	≥ 100	≥ 100

1.4 Bitumen Prime Coating is a bitumen primer for preparation of substrates prior to the application of the products.

2 Manufacture

2.1 The membranes and AVCLs are manufactured by saturating and coating the reinforcement with styrene-butadiene-styrene (SBS) modified bitumen, then calendaring to the correct thickness. The lower and upper surfaces are applied as appropriate and the sheets are cooled, trimmed and rolled for packaging.

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 Georg Börner Chemisches Werk für Dach Bautenschutz GmbH & Co KG has been assessed and registered as meeting the requirements of EN ISO 9001 : 2015 (Certificate 96952 issued by KIWA International Cert GmbH).

3 Delivery and site handling

3.1 The membranes and AVCLs are delivered to site in rolls with either paper wrappers or tape bands bearing the product name and product dimensions. The rolls are packed on pallets and shrink wrapped in polythene, the pallets bear a label with product number, product name, dimensions and batch number.

3.2 Rolls should be stored upright on a clean, level surface, away from excessive heat and kept under cover. The self-adhesive products should be stored out of direct sunlight.

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).

Assessment and Technical Investigations

The following is a summary of the assessment and technical investigations carried out on the Torch-Safe System.

Design Considerations

4 General

4.1 The Torch-Safe System is satisfactory for use as a fully bonded roof waterproofing and AVCL in a warm roof waterproofing system on flat and pitched roofs with limited access.

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 2021*, 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, such as pedestrian access roofs, additional protection must be provided (see section 10 of this Certificate and the relevant clauses of the Certificate holder's installation instructions).

4.4 Flat roofs are defined for the purpose of this Certificate as those 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.

4.5 Pitched roofs are defined for the purpose of this Certificate as those having a fall in excess of 1:6.

4.6 Insulation 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 be used in accordance with, and within the limitations of, that Certificate.

5 Practicability of installation

Installation of the system must only be carried out by roofing contractors trained and approved by the Certificate holder.

6 Weathertightness



The waterproofing membranes, including joints, when completely sealed and consolidated, will adequately resist the passage of moisture to the interior of a building and so satisfy the requirements of the national Building Regulations.

7 Condensation risk



The AVCLs provide effective control to the passage of liquid water and water vapour.

8 Properties in relation to fire



8.1 When classified to EN 13501-5 : 2016 the systems given in Table 3 achieved B_{ROOF(t4)} for slopes below 10°.

Table 3 Systems given B_{ROOF(t4)} classification

Substrate	AVCL	Insulation	Underlay	Capsheet	Classification report number
18 mm plywood	Daco-KSD-B MULTIPLEX Super AL	glass faced polyisocyanurate (PIR) boards bonded with polyurethane adhesive 50 mm to 240 mm	Daco-KSU+ or INTER-Stick SK 3 Extra	Poly Elast PV180 S4 Poly-Elast PV 250 S5 or DACO KSO	19901D ⁽¹⁾
18 mm plywood	Daco-KSD-B MULTIPLEX Super AL	layer aluminium faced polyisocyanurate (PIR) boards bonded with polyurethane adhesive 50 mm to 240 mm	Daco-KSU+ or INTER-Stick SK 3 Extra	Poly Elast PV180 S4 Poly-Elast PV 250 S5 or DACO KSO	19901D ⁽¹⁾
18 mm plywood	Daco-KSD-B MULTIPLEX Super AL	bitumen faced mineral wool boards greater than 60 mm	Daco-KSU+ or INTER-Stick SK 3 Extra	Poly Elast PV180 S4 Poly-Elast PV 250 S5 or DACO KSO	19901H ⁽²⁾

(1) Fire Classification report, reference 19901D, conducted by Warrington Fire, Gent. Report available from the Certificate holder.

(2) Fire Classification report, reference 19901H, conducted by Warrington Fire, Gent. Report available from the Certificate holder.

8.2 When used in conjunction with one of the inorganic coverings listed in the Annex of Commission Decision 2000/553/EC, the system can be considered to be unrestricted, with respect to the proximity of relevant boundaries, under the national Building Regulations.



8.3 In Wales and Northern Ireland, when used on flat roofs with the surface finishes listed below, the roof is also deemed to be unrestricted:

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



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



8.5 The systems, when used in pitches of greater than 70°, excluding upstands, should not be used on buildings in England and Wales that have a storey at least 18 m above ground level and contain: one or more dwellings, an institution, a room for residential purposes (excluding any room in a hostel, hotel or boarding house), student accommodation, care homes, sheltered housing, hospitals or dormitories in boarding schools.



8.6 The system, when used in pitches of greater than 70°, excluding upstands, should not be used on buildings in Scotland that have a storey at least 11 m above ground level.

9 Resistance to wind uplift

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

10 Resistance to mechanical damage

10.1 The membranes and AVCLs can accept, without damage, the foot traffic and light concentrated loads associated with installation and maintenance. Where traffic in excess of this 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 should be taken to avoid puncture by sharp objects or concentrated loads.

10.2 The system is capable of accepting minor structural movement while remaining weathertight.

11 Maintenance



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

11.2 Where damage has occurred, it should be repaired in accordance with section 16 of this Certificate and the Certificate holder's instructions.

12 Durability



12.1 Under normal service conditions, the system will provide a durable waterproof covering with a service life in excess of 35 years.

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

13 Reuse and recyclability

The membranes are made from bitumen, polyester and glass, which can be recycled.

Installation

14 General

14.1 Installation of Torch-Safe System is carried out in accordance with the Certificate holder's instructions, the relevant clauses of BS 8000-0 : 2014, BS 8000-4 : 1989 and BS 8217 : 2005 and this Certificate.

14.2 Deck surfaces must be dry, clean and free from sharp projections such as nail heads and concrete nibs. The substrate should be prepared using Bitumen Prime Coating as specified and at the recommended rate, prior to the installation of the AVCL.

14.3 The system may 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.

14.4 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.

14.5 At falls in excess of 5° (1:11) precautions against slippage, and requirements for mechanical fixing as required by BS 8217 : 2005, should be observed. For slopes above 10° (1:5.7) the Certificate holder's Technical Service Department should be contacted for advice.

14.6 Installation of the insulation boards must be carried out in accordance with the insulation manufacturer's instructions.

15 Procedure

AVCL

15.1 Where thermal break insulation is installed, the AVCL must extend up all upstands by a sufficient height to ensure that the insulation is encapsulated.

15.2 The AVCL is installed in accordance with the appropriate method for the product and substrate as follows:

- DACO-KSD-B on timber substrates mechanically fastened with galvanized clout nails in rows hidden with a 100 mm wide strip of DACO-KSD-B
- DACO-KSD-B on other substrates by self-adhesion
- MULTIPLEX Super AL on all substrates by torch-bonding.

15.3 The overlaps for the AVCLs are a minimum of 80 to 100 mm wide. The laps are sealed together using either hot air welding for the DACO-KSD-B or gas torch for MULTIPLEX Super AL in accordance with the Certificate holder's instructions.

15.4 Insulation boards are bonded to the AVCL using a suitable polyurethane adhesive.

Waterproofing layer

15.5 The self-adhesive underlays are installed by removing the release film from the lower surface and unrolling the membrane onto the substrate, ensuring that it is properly bonded and that no air is trapped under the membrane.

15.6 End laps and side laps for the underlays are 80 mm and the joint is consolidated using a hand roller.

15.7 The underlay must be taken a sufficient distance up all upstands and protrusions to ensure a secure lap with the AVCL and should be a minimum height of 150 mm above the roof surface.

15.8 Laps between the underlays and the capsheets should be offset by a minimum of 300 mm.

15.9 The DACO-KSO is installed in the perimeter zone of the roof for a minimum of 900 mm from any areas of detailing. The membrane is installed in accordance with section 15.5 of this Certificate.

15.10 Bonding of the POLY-ELAST PV 180 S4 and POLY-ELAST PV 250 S5 capsheets is achieved by melting their lower surfaces by torching and pressing the membranes down. Care must be taken not to overheat the membranes.

15.11 End laps and side laps for the capsheets are 80 mm wide and fully bonded, ensuring that a continuous bead of bitumen exudes from the lap.

15.12 Detailing should be carried out in accordance with the Certificate holder's instructions and following guidelines specified in the NFRC *Safe2Torch Guidance For the safe installation of torch-on reinforced bitumen membranes and use of gas torches in the workplace* document.

16 Repair

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

Technical Investigations

17 Tests

17.1 Tests were carried out on the capsheets and the results assessed to determine:

- thickness
- mass per unit area
- tensile strength and elongation
- low temperature flexibility
- heat resistance.

17.2 Tests were carried out on the AVCLs and the results assessed to determine:

- thickness
- mass per unit area
- tensile strength and elongation
- nail tear
- peel strength from concrete substrate of self-adhesive membrane control and heat aged for 28 days.

17.3 Tests were carried out on the underlays and the results assessed to determine:

- thickness
- mass per unit area
- head of water.

17.4 Samples were taken from an existing site and further artificially heat aged to a 35 year equivalent and heat resistance tested.

18 Investigations

18.1 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.

18.2 Data on fire performance were assessed.

18.3 Existing test data for a capsheet reinforced with the 250 g·m⁻² polyester fleece was assessed to determine:

- head of water
- tensile strength and elongation
- nail tear
- resistance to impact
- resistance to static loading
- dimensional stability
- shear strength of joints
- peel strength of joints
- adhesion of granules
- low temperature flexibility after heat ageing
- tensile strength and elongation after heat ageing.

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*

EN 13501-5 : 2016 *Fire classification of construction products and building element — Classification using data from external fire exposure to roofs tests*

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

EN 13970 : 2004 *Flexible sheets for waterproofing — Bitumen water vapour control layers — Definitions and characteristics*

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

19 Conditions

19.1 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.

19.2 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.

19.3 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.

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

19.5 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.

19.6 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.