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BBBA APPROVAL INSPECTION TECHNICAL APPROVALS FOR CONSTRUCTION Agrément Certificate

08/4548 Product Sheet 3 Issue 5

TYVEK⁽¹⁾ ROOF LINING SYSTEMS

DUPONT AIRGUARD CONTROL AIR LEAKAGE BARRIER (8327AD)

This Agrément Certificate Product Sheet⁽²⁾ relates to DuPont AirGuard⁽¹⁾ Control Air Leakage Barrier (8327AD), an air barrier for use in roofs and ceilings in slated or tiled pitched roof systems, in domestic and non-domestic buildings.

- Tyvek and DuPont AirGuard are registered trademarks of E.I DuPont de Nemours & Co or its affiliates.
- (2) Hereinafter referred to as 'Certificate'

The assessment includes

Product factors:

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

Process factors:

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

Ongoing contractual Scheme elements †:

- regular assessment of production
- formal 3-yearly review



KEY FACTORS ASSESSED

- Section 1. Mechanical resistance and stability
- Section 2. Safety in case of fire
- Section 3. Hygiene, health and the environment
- Section 4. Safety and accessibility in use
- Section 5. Protection against noise
- Section 6. Energy economy and heat retention
- Section 7. Sustainable use of natural resources
- Section 8. Durability
- The BBA has awarded this Certificate to the company named above for the system described herein. This system has been assessed by the BBA as being fit for its intended use provided it is installed, used and maintained as set out in this Certificate.

On behalf of the British Board of Agrément

Date of Fifth issue: 9 October 2024 Originally certified on 8 April 2008

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 DuPont AirGuard Control Air Leakage Barrier (8327AD), if installed, used and maintained in accordance with this Certificate, can satisfy or contribute to satisfying the relevant requirements of the following Building Regulations:

	The Building Regulations 2010 (England and Wales) (as amended)			
Requirement: Comment:	B3(4)	Internal fire spread (structure) The system can contribute to satisfying this Requirement. See section 2 of this Certificate.		
Requirement: Comment:	B4(1)	External fire spread The system is restricted by this Requirement, in some circumstances. See section 2 of this Certificate.		
Requirement: Comment:	C2(c)	Resistance to moisture The system can contribute to satisfying this Requirement. See section 3 of this Certificate.		
Requirement: Comment:	L1(a)(i)	Conservation of fuel and power The system can contribute to satisfying this Requirement. See section 6 of this Certificate.		
Regulation: Comment:	7(1)	Materials and workmanship The system is acceptable. See sections 8 and 9 of this Certificate.		
Regulation: Regulation: Regulation: Regulation: Regulation: Regulation: Comment:	25B 26 26A 26A 26B 26C 26C	Nearly zero-energy requirements for new buildings CO ₂ emission rates for new buildings Fabric energy efficiency rates for new dwellings (applicable to England only) Primary energy rates for new buildings (applicable to Wales only) Fabric performance values for new dwellings (applicable to Wales only) Target primary energy rates for new buildings (applicable to England only) Energy efficiency rating (applicable to Wales only) The system can contribute to satisfying these Regulations. See section 6 of this Certificate.		

E Star	The Building (Scotland) Regulations 2004 (as amended)		
Regulation: Comment:	8(1)	Fitness and durability of materials and workmanship The system can contribute to a construction satisfying this Regulation. See sections 8 and 9 of this Certificate.	
Regulation: Standard: Comment:	9 2.4	Building standards – construction Cavities The system can contribute to satisfying this Standard, with reference to clause 2.4.2 ⁽¹⁾⁽²⁾ . See section 2 of this Certificate.	
Standard: Comment:	3.15	Condensation The system can contribute to satisfying this Standard, with reference to clauses 3.15.1 ⁽¹⁾⁽²⁾ , 3.15.3 ⁽¹⁾⁽²⁾ and 3.15.5 ⁽¹⁾⁽²⁾ . See section 3 of this Certificate.	

Standard: Standard: Comment:	6.1(b)(c) 6.2	Energy demand Building insulation envelope The system can contribute to satisfying these Standards, with reference to clauses 6.1.1 ⁽¹⁾ , 6.1.2 ⁽²⁾ , 6.2.4 ⁽¹⁾ and 6.2.5 ⁽²⁾ . See section 6 of this Certificate.
Standard: Comment:	7.1(a)(b)	Statement of sustainability The system can contribute to satisfying the relevant requirements of Regulation 9, Standards 1 to 6, and therefore will contribute to a construction meeting a bronze level of sustainability as defined in this Standard. In addition, the system can contribute to a construction meeting a higher level of sustainability as defined in this Standard, with reference to clauses $7.1.4^{(1)}$, $7.1.6^{(1)(2)}$, $7.1.7^{(1)}$, $7.1.9^{(2)}$ and $7.1.10^{(2)}$. See section 6 of this Certificate.
Regulation: Comment:	12	 Building standards – conversion 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 (Domestic).
		(2) Technical Handbook (Non-Domestic).
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E B B B	The Build	ding Regulations (Northern Ireland) 2012 (as amended)
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Regulation: Comment:	23(1)(a)(i) (iii)(b)(i)	Fitness of materials and workmanship The system is acceptable. See sections 8 and 9 of this Certificate.
Regulation: Comment:	23(1)(a)(i) (iii)(b)(i)	Fitness of materials and workmanship The system is acceptable. See sections 8 and 9 of this Certificate.
Regulation: Comment: Regulation: Comment:	23(1)(a)(i) (iii)(b)(i) 29	 Fitness of materials and workmanship The system is acceptable. See sections 8 and 9 of this Certificate. Condensation The system can contribute satisfying this Regulation. See section 3 of this Certificate.
Regulation: Comment: Regulation: Comment:	23(1)(a)(i) (iii)(b)(i) 29	 Fitness of materials and workmanship The system is acceptable. See sections 8 and 9 of this Certificate. Condensation The system can contribute satisfying this Regulation. See section 3 of this Certificate.
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Additional Information

NHBC Standards 2024

In the opinion of the BBA, DuPont AirGuard Control Air Leakage Barrier (8327AD), if installed, used and maintained in accordance with this Certificate, can satisfy or contribute to satisfying the relevant requirements in relation to *NHBC Standards*, Chapters 7.2 *Pitched roofs* and 9.2 *Wall and ceiling finishes*.

Fulfilment of Requirements

The BBA has judged DuPont AirGuard Control Air Leakage Barrier (8327AD) to be satisfactory for use as described in this Certificate. The system has been assessed as an air barrier for use in roofs and ceilings in slated or tiled pitched roof systems, in domestic and non-domestic buildings.

ASSESSMENT

Product description and intended use

The Certificate holder provided the following description for the system under assessment.

DuPont AirGuard Control Air Leakage Barrier (8327AD) is a spunbond polypropylene substrate coated with a polyolefincopolymer.

The system has the nominal characteristics given in Table 1.

Table 1 Nominal characteristics		
Characteristic (unit)	Value	
Thickness (mm)	0.32	
Mass per unit area (g·m⁻²)	108	
Roll length (m)	50	
Roll width (m)	1.5	
Colour	Blue top and grey lower	

Ancillary items

The following ancillary items are essential to use with the system and have been assessed with the system:

- Tyvek Double-sided Tape (1310D) for sealing overlaps and bonding the membrane to smooth surfaces
- Tyvek Acrylic Tape (2060B) a single-sided tape for use in laps and repairs (see section 9.4)
- Tyvek FlexWrap EZ (2064FW) a flexible sealing tape for use in building penetrations
- Tyvek Butyl Tape (1311B) a double-sided tape for sealing penetrations
- AirGuard Tape (1310V) a flexible airtight sealing tape for internal use in detailing.

Applications

The system has been assessed as an air barrier and is satisfactory for use as an alternative to traditional vapour control layers/air barriers in the following roof specifications:

- at ceiling level in slated or tiled pitched cold roof constructions (see Figure 1)
- at the rafter line in slated or tiled pitched warm roof constructions (see Figure 2)
- in conjunction with Tyvek Supro 2507B (see Product Sheets 1, 2 and 8 of this Certificate).

Definitions for products and applications inspected

Pitched roofs are defined for the purposes of this Certificate as those having a fall in excess of 10° and a maximum pitch of 70°.

Product assessment – key factors

The system was assessed for the following key factors, and the outcome of the assessments is shown below. Conclusions relating to the Building Regulations apply to the whole of the UK unless otherwise stated.

1 Mechanical resistance and stability

Not applicable.

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2 Safety in case of fire

Data were assessed for the following characteristic.

2.1 Reaction to fire

2.1.1 When tested to BS EN ISO 11925-2 : 2020 and classified to BS EN 13501-1 : 2018, the system achieved a reaction to fire classification of Class $E^{(1)(2)}$.

(1) FIRES s.r.o., report reference FIRES-CR-218-22-AUPE, 25 October 2022, and available from the Certificate holder on request.
 (2) The classification is valid for the following final use applications and product parameters:

- flexible sheet for waterproofing with all substrates, mechanically fixed or free laid down
- all colour shades including black and white
- thickness range within production tolerances
- density range within production tolerances.

2.1.2 On the basis of data assessed, the system will be restricted in use under the documents supporting the national Building Regulations in some cases.

2.1.3 In England, the system, when used in roof 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 areas.

2.1.4 In Wales and Northern Ireland, the system, when used in roof pitches greater than 70°, excluding upstands, must not be used less than 1 m from a relevant boundary, or on other buildings more than 18 m in height or, in some cases, on assembly and recreation buildings. These constructions must also be included in calculations of unprotected areas.

2.1.5 In Scotland, the use of the system is unrestricted in terms of 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 complete system, which must be established on a case-by-case basis.

2.1.6 Designers must refer to the relevant national Building Regulations and guidance for detailed conditions of use, particularly in respect of requirements for substrate fire performance, cavity barriers, service penetrations and combustibility limitations for other materials and components used in the overall construction.

2.1.7 When the system is used exposed to the roof space, there is a risk that fire can spread if it is accidentally ignited during maintenance works, eg by a roofer's or plumber's torch. As with all types of underlay, care must be taken during building and maintenance to avoid the material becoming ignited.

3 Hygiene, health and the environment

Data were assessed for the following characteristics.

3.1 Resistance to water and water vapour

3.1.1 Results of resistance to water and water vapour tests are given in Table 2.

Table 2 Resistance to water a	nd water vapour		
System assessed	Assessment method	Requirement	Result
AirGuard Control 8327AD	Watertightness to	No leakage	Pass
	BS EN 1928 : 2000 (A)		
	and BS EN 13984 : 2013		
	Hydrostatic head to	Value achieved	> 2 m
	BS EN 20811 : 1992		
	Water vapour resistance to BS EN 1931 : 2000	Declared value ≥ 10 MN·s·g ⁻¹	Pass

3.1.2 A condensation risk analysis was carried out based on the results given in Table 2 and satisfactory conclusions were drawn.

3.1.3 On the basis of data assessed, the system provides an effective control to the passage of liquid water and water vapour and will contribute to limiting the risk of interstitial condensation.

3.2 Airtightness

3.2.1 The result of an air permeability test is given in Table 3.

Table 3 Air permeability tests				
System assessed	Assessment method	Requirement	Result	
AirGuard Control 8327AD	BS EN 12114 : 2000	Value achieved	No leakage	
	at 50 Pa			

3.2.2 On the basis of data assessed, the system has satisfactory resistance to air movement.

3.3 <u>Resistance to mechanical damage</u>

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

<u> </u>	· · · · · · · · · · · · · · · · · · ·	- · · ·	
System assessed	Assessment method	Requirement	Result
AirGuard Control 8327AD	Tensile strength to	Declared value	
	BS EN 12311-2 : 2013		
	Longitudinal direction	≥ 150 N·(50 mm) ⁻¹	Pass
	Transverse direction	≥ 120 N·(50 mm) ⁻¹	Pass
	Elongation at maximum load to	Declared value	
	BS EN 12311-2 : 2013		
	Longitudinal direction	≥ 25%	Pass
	Transverse direction	≥ 25%	Pass
	Nail tear to	Declared value	
	BS EN 12310-1 : 2000		
	Longitudinal direction	≥ 170 N	Pass
	Transverse direction	≥ 170 N	Pass

3.3.2 On the basis of data assessed, the system has adequate strength to resist the loads associated with installation and service.

4 Safety and accessibility in use

Not applicable.

5 Protection against noise

Not applicable.

6 Energy economy and heat retention

Data were assessed for the following characteristic.

6.1 Conservation of fuel and power

When lapped, fixed and taped correctly, the system acts as an air barrier and can contribute to elements and junctions minimising heat loss by unplanned air infiltration and exfiltration. Guidance in this respect can be found in the documents supporting the national Building Regulations.

7 Sustainable use of natural resources

The system is made from a mix of polyolefins, which can be recycled.

8 Durability

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

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

Table 5 Durability			
System assessed	Assessment method	Requirement	Result
AirGuard Control 8327AD	Water vapour resistance to	Value achieved	
	BS 3177 : 1959		
	Control		20 MN·s·g ⁻¹
	Exposed to creosote		10 MN·s·g ⁻¹
	Exposed to oil of cedarwood		8.14 MN·s·g ⁻¹
	Exposed to aqueous preservative		20 MN·s·g ⁻¹
	Exposed to distilled turpentine		19.4 MN·s·g ⁻¹
	Nail tear to	Value achieved	
	MOAT 27 : 1983		
	Control		
	Longitudinal direction		131 N
	Transverse direction		143 N
	Heat aged for 28 days at 70°C		
	Longitudinal direction		132 N
	Transverse direction		134 N

8.3 Service life

Under normal service conditions, the system will have a life at least equivalent to the structure in which it is incorporated, provided it is designed, installed and maintained in accordance with this Certificate and the Certificate holder's instructions.

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 Roofs must be designed and constructed in accordance with BS 5534 : 2014 and BS 5250 : 2021.

9.1.3 Constructions must be in accordance with the nominal recommendations of BS 5250 : 2021 using a minimum air layer equivalent value (s_d) of not less than 2 m (equivalent to a water vapour resistance of 10 MN·s·g⁻¹) for the system.

9.1.4 The risk of condensation occurring will depend upon the properties and vapour resistance of other materials used in the construction, the internal and external conditions, and the effectiveness of the installation. The system, when taking into consideration the aforementioned factors, can contribute to limiting the risk of interstitial condensation.

9.1.5 Where constructions need to comply with *NHBC Standards* 2024, specifiers must observe the requirements of this document.

9.1.6 Fibre contraction within the membrane can sometimes occur when in contact with water or solvent based timber treatments, temporarily resulting in a loss of water resistance. This only applies to wet treatments which have been freshly applied or soaked (by rainfall). Sufficient time must be allowed for timber treatments to dry before the installation of Tyvek and AirGuard membranes.

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, the relevant recommendations of BS 9250 : 2007 and good building practice (see Figures 1 to 3). A summary of instructions and guidance is provided in Annex A of this Certificate.

9.2.3 The membrane must be positioned on the warm side of the thermal insulation and held in place if required by suitable fasteners to the background structure. Joints between adjacent sheets of the material must be lapped 150 mm over a support and be sealed with a strip of Tyvek Acrylic Tape (2060B) or AirGuard Tape (1310V).

9.2.4 In ceilings, the membrane must be placed directly between the underside of the rafters and the ceiling lining to cover the insulation on the warm side as an air barrier.

9.2.5 Consideration must be given in the overall installation to minimising penetrations by services. Joints at ceilings/walls must be sealed to offer significant resistance to water vapour transmission.

9.2.6 At all penetrations and abutments, the membrane must be cut neatly to fit as closely as possible, and the joint sealed with a strip of Tyvek Acrylic Tape (2060B) or Tyvek Flex Wrap EZ (2064FW). Penetrations must be kept to a minimum.

9.2.7 The system must be made vapour and convection tight at detailing. The membrane must be sealed tight against the frame with AirGuard Tape (1310V), or tucked in and compressed by the frame.

9.2.8 Internal linings can be applied directly onto the system and fixed through it in the normal manner. Alternatively, the internal lining may be set on spacer battens, leaving a gap behind the lining which can accommodate wiring and other services and reduce the need for penetrations of the vapour control layer/air leakage barrier.

9.2.9 Where wood preservatives and damp-proofing treatments containing solvents have been applied, sufficient time must be allowed for solvents to disperse before the system is installed.



Figure 1 Cold pitched roof — ceiling level



9.3 Workmanship

Practicability of installation was assessed by the BBA, on the basis of the Certificate holder's information. To achieve the performance described in this Certificate, installation of the system must be carried out by competent persons experienced with this type of system.

9.4 Maintenance and repair

9.4.1 As the system is confined within a roof structure and has suitable durability, maintenance is not required. However, any damage occurring before enclosure must be repaired.

9.4.2 Damage to the system can be repaired with Tyvek Acrylic Tape (2060B). Extensively damaged areas must be made good by overlaying a new sheet sealed in place with Tyvek Acrylic Tape (2060B), AirGuard Tape (1310V) or Tyvek Double-sided Tape (1310D). To confirm which method is most applicable, the Certificate holder's advice must be sought in this respect.

10 Manufacture

10.1 The production processes for the system have been assessed, and provide assurance that the quality controls are satisfactory according to the following factors:

10.1.1 The manufacturer has provided documented information on the materials, processes, testing and control factors.

10.1.2 The quality control operated over batches of incoming materials has been assessed and deemed appropriate and adequate.

10.1.3 The quality control procedures and product testing to be undertaken have been assessed and deemed appropriate and adequate.

10.1.4 The process for management of non-conformities has been assessed and deemed appropriate and adequate.

10.1.5 An audit of each production location was undertaken, and it was confirmed that the production process was in accordance with the documented process, and that equipment has been properly tested and calibrated.

† 10.2 The BBA has undertaken to review the above measures on a regular basis through a surveillance process, to verify that the specifications and quality control operated by the manufacturer are being maintained.

11 Delivery and site handling

11.1 The Certificate holder stated that the system is delivered to site in packaging bearing the Certificate holder and the system names, the batch code and the BBA logo incorporating the number of this Certificate.

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

11.2.1 Rolls must be stored flat on their sides, on a smooth, clean, dry surface, under cover and protected from sunlight.

ANNEX A – SUPPLEMENTARY INFORMATION †

Supporting information in this Annex is relevant to the system but has not formed part of the material assessed for the Certificate.

<u>Construction (Design and Management) Regulations 2015</u> Construction (Design and Management) Regulations (Northern Ireland) 2016

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

CLP Regulations

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

UKCA marking

The Certificate holder has taken the responsibility of UKCA marking the system in accordance with Designated Standard EN 13984 : 2013.

CE marking

The Certificate holder has taken the responsibility of CE marking the system in accordance with harmonised European Standard EN 13984 : 2013.

Management Systems Certification for production

The management system of the manufacturer has been assessed and registered as meeting the requirements of ISO 9001 : 2015 by DQS GmbH (Certificate 000093 QM15) and ISO 14001 : 2015 by Lloyd's Register (Certificate 10322753).

Additional information on installation

A.1 It is essential that proper care and attention be given to maintaining the system's integrity and continuity.

A.2 Sealing must also be carried out in accordance with the Certificate holder's instructions.

A.3 Further information is given in BRE Guidance Report No 262 Thermal insulation: avoiding the risks.

Bibliography

BS 3177 : 1959 Method for determining the permeability to water vapour of flexible sheet materials used for packaging

BS 5250 : 2021 Management of moisture in buildings — Code of practice

BS 5534 : 2014 + A2 : 2018 Slating and tiling for pitched roofs and vertical cladding — Code of practice

BS 9250 : 2007 Code of practice for design of the airtightness of ceilings in pitched roofs.

BS EN 12114 : 2000 Thermal performance of buildings — Air permeability of building components and building elements — Laboratory test methods

BS EN 1928 : 2000 Flexible sheets for waterproofing — Bitumen, plastic and rubber sheets for roof waterproofing — Determination of watertightness

BS EN 1931 : 2000 Flexible sheets for waterproofing — Bitumen, plastic and rubber sheets for roof waterproofing — Determination of water vapour transmission properties

BS EN 12310-1 : 2000 Flexible sheets for waterproofing — Determination of resistance to tearing (nail shank) — Bitumen sheets for roof waterproofing

BS EN 12311-2 : 2013 Flexible sheets for waterproofing — Determination of tensile properties — Plastic and rubber sheets for roof waterproofing

BS EN 13501-1 : 2018 Fire classification of construction products and building elements — Classification using test data from reaction to fire tests

BS EN 13984 : 2013 Flexible sheets for waterproofing — Plastic and rubber vapour control layers — Definitions and characteristics

BS EN 20811 : 1992 Textiles — Determination of resistance to water penetration — Hydrostatic pressure test

BS EN ISO 11925-2 : 2020 Reaction to fire tests — Ignitability of products subjected to direct impingement of flame — Single-flame source test

ISO 9001 : 2015 Quality management systems — Requirements

ISO 14001 : 2015 Environmental management systems — Requirements with guidance for use

MOAT 27: 1983 General directive for the assessment of roof waterproofing systems

Conditions of Certificate

Conditions

1 This Certificate:

- relates only to the 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.

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 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.

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 system or any other product
- the right of the Certificate holder to manufacture, supply, install, maintain or market the system
- actual installations of the system, including their nature, design, methods, performance, workmanship and maintenance
- any works and constructions in which the system is installed, including their nature, design, methods, performance, workmanship and maintenance
- any loss or damage, including personal injury, howsoever caused by the system, 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 system which is contained or referred to in this Certificate is the minimum required to be met when the 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.

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