

Huntsman IFS Polyurethanes Limited

Station Road
Roydon
Norfolk PE32 1AW



Tel: 01485 500668
e-mail: infoeu@huntsmanbuilds.com
website: www.huntsmanbuildingsolutions.com

Agrément Certificate

23/7062

Product Sheet 3 Issue 1

H₂ FOAM LITE E (LD-C-50 v8E) INSULATION

H₂ FOAM LITE E (LD-C-50 v8E) FOR SUSPENDED FLOORS

This Agrément Certificate Product Sheet⁽¹⁾ relates to H₂ Foam Lite E (LD-C-50 v8E) for suspended floors, an in-situ spray-applied thermal insulation for use in suspended timber ground floors of new and existing domestic buildings.

(1) Hereinafter referred to as 'Certificate'.

The assessment includes

Product factors:

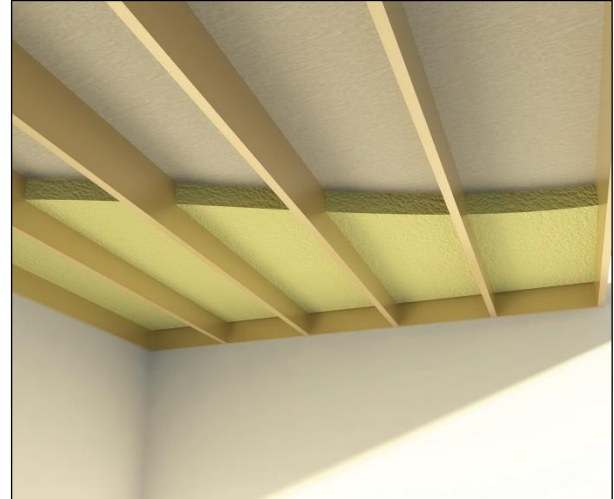
- compliance with Building Regulations
- compliance with additional regulatory or non-regulatory information where applicable
- evaluation against technical specifications
- assessment criteria and technical investigations
- uses and design considerations

Process factors:

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

Ongoing contractual Scheme elements†:

- regular assessment of production
- formal 3-yearly review



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 product described herein. This product 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 issue: 2 January 2024

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.

British Board of Agrément

1st Floor Building 3, Hatters Lane
Croxley Park, Watford
Herts WD18 8YG

©2024

tel: 01923 665300
clientservices@bbacerts.co.uk
www.bbacerts.co.uk

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 H₂ Foam Lite E (LD-C-50 v8E) for suspended floors, 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:	C2(c)	Resistance to moisture
Comment:		The product can contribute to satisfying this Requirement. See section 3 of this Certificate.
Requirement:	L1(a)(i)	Conservation of fuel and power
Comment:		The product can contribute to satisfying this Requirement; however, compensating fabric measures may be required. See section 6 of this Certificate.
Regulation:	7(1)	Materials and workmanship
Comment:		The product is acceptable. See sections 8 and 9 of this Certificate.
Regulation:	25B	Nearly zero-energy requirements for new buildings
Regulation:	26	CO₂ emission rates for new buildings
Regulation:	26A	Fabric energy efficiency rates for new dwellings (applicable to England only)
Regulation:	26A	Primary energy rates for new buildings (applicable to Wales only)
Regulation:	26B	Fabric performance values for new dwellings (applicable to Wales only)
Regulation:	26C	Target primary energy rates for new buildings (applicable to England only)
Regulation:	26C	Energy efficiency rating (applicable to Wales only)
Comment:		The product can contribute to satisfying these Regulations; however, compensating fabric/services measures may be required. See section 6 of this Certificate.



The Building (Scotland) Regulations 2004 (as amended)

Regulation:	8(1)	Fitness and durability of materials and workmanship
Comment:		The product is acceptable. See sections 8 and 9 of this Certificate.
Regulation:	9	Building standards – construction
Standard:	3.15	Condensation
Comment:		The product can contribute to satisfying this Standard, with reference to clauses 3.15.1 ⁽¹⁾ and 3.15.5 ⁽¹⁾ . See section 3 of this Certificate.
Standard:	6.1(b)(c)	Energy demand and carbon dioxide emissions
Comment:	(d)	The product can contribute to satisfying this Standard, with reference to clause 6.1.1 ⁽¹⁾ ; however, compensating fabric/services measures may be required. See section 6 of this Certificate.
Standard:	6.2	Building insulation envelope
Comment:		The product can contribute to satisfying this Standard, with reference to clauses or parts of 6.2.1 ⁽¹⁾ , 6.2.3 ⁽¹⁾ , 6.2.6 ⁽¹⁾ , 6.2.7 ⁽¹⁾ , 6.2.8 ⁽¹⁾ , 6.2.9 ⁽¹⁾ , 6.2.10 ⁽¹⁾ , 6.2.11 ⁽¹⁾ and 6.2.12 ⁽¹⁾ ; however, compensating fabric measures may be required. See section 6 of this Certificate.

Standard:	7.1(a)	Statement of sustainability
Comment:		The product can contribute to satisfying the relevant requirements of Regulation 9, Standards 1 to 6, and therefore will contribute to a construction meeting at least a bronze level of sustainability as defined in this Standard. See section 6 of this Certificate.
Regulation:	12	Building standards – conversions
Comment:		Comments in relation to the product under Regulation 9, Standards 1 to 6, also apply to this Regulation, with reference to clause 0.12.1 ⁽¹⁾ and Schedule 6 ⁽¹⁾ .
		(1) Technical Handbook (Domestic).



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

Regulation:	23(1)(a)	Fitness of materials and workmanship
Comment:	(i)(iii)(b) (i)(ii)	The product is acceptable. See sections 8 and 9 of this Certificate.
Regulation:	29	Condensation
Comment:		The product can contribute to satisfying this Regulation. See section 3 of this Certificate.
Regulation:	39(a)(i)	Conservation measures
Comment:		The product can contribute to satisfying this Regulation; however, compensating fabric measures may be required. See section 6 of this Certificate.
Regulation:	40(2)	Target carbon dioxide emission rate
Regulation:	43(1)(2)	Renovation of thermal elements
Regulation:	43(b)	Nearly zero-energy requirements for new buildings
Comment:		The product can contribute to satisfying these Regulations; however, compensating fabric/services measures may be required. See section 6 of this Certificate.

Additional Information

NHBC Standards 2023

In the opinion of the BBA, H₂ Foam Lite E (LD-C-50 v8E) for suspended floors, 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 5.2 *Suspended ground floors*.

Fulfilment of Requirements

The BBA has judged BBA, H₂ Foam Lite E (LD-C-50 v8E) for suspended floors to be satisfactory for use as described in this Certificate. The product has been assessed for installation in suspended timber ground floors of new and existing domestic buildings.

ASSESSMENT

Product description and intended use

The Certificate holder provided the following description for the product under assessment. H₂ Foam Lite E (LD-C-50 v8E) for Suspended Floors is an in-situ formed, spray-applied, open-cell, water-blown, low-density, semi-rigid polyurethane foam insulation, consisting of:

- component A — isocyanate
- component B — resin.

The product has the nominal characteristics given in Table 1.

Table 1 Nominal characteristics

Characteristic (unit)	Method	Value
Mixing ratio	—	1:1 by volume
Colour	—	Yellow
Maximum thickness (mm)	BS EN 823 : 2013	200
Density (kg·m ⁻³)	BS EN 1602 : 2013	7 - 9

Applications

The product is intended for use as insulation between timber joists in suspended timber ground floors of new and existing domestic buildings where the underfloor void is not greater than 1 m in height, is not normally accessible by people, and provided no direct loading is applied to the insulation.

Product assessment – key factors

The product 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

Data were assessed for the following characteristics.

1.1 The product was tested for adhesion to the substrates given in Table 2.

Table 2 Adhesion to substrates

Product assessed	Assessment method	Substrate	Result (kPa)
H ₂ Foam Lite E	BS EN 14315-1 : 2013	Softwood	25
(LD-C-50 v8E)	Annex F	OSB	33

1.2 On the basis of data assessed, the product has adequate adhesion to the substrates intended for use in this Certificate, provided they are clean and dry prior to application. See also section 9 of this Certificate.

1.3 Floor loading

1.3.1 No direct loading is to be applied to the insulation. See section 9 of this Certificate.

2 Safety in case of fire

2.1 Reaction to fire

2.1.1 The product was tested for reaction to fire and the classification is given in Table 3.

Table 3 Reaction to fire classification⁽¹⁾

Product assessed	Assessment method	Requirement	Result
H ₂ Foam Lite E (LD-C-50 v8E)	ČSN EN 13501-1 : 2019	Value achieved	E

(1) CSI. Report no: PK-23-136. 18 August 2023. Copies can be obtained from the Certificate holder.

2.1.2 Designers should refer to the relevant national Building Regulations and guidance for detailed conditions of use, particularly in respect of requirements for cavity closers and barriers, fire stopping of service penetrations and combustibility limitations for other materials and components used in the overall building construction.

2.1.3 The product must be protected from naked flames and other ignition sources during and after installation.

3 Hygiene, health and the environment

Data were assessed for the following characteristics.

3.1 Water vapour permeability

The product was tested for water vapour permeability to establish a water vapour resistance factor (μ). The result is given in Table 4.

Product assessed	Assessment method	Requirement	Result
H ₂ Foam Lite E (LD-C-50 v8E)	ČSN EN 12086 : 2013 (Method A)	Value achieved	4.4

3.2 Condensation

3.2.1 The BBA has assessed the product for the risk of interstitial condensation and the following factors must be implemented.

3.2.2 An assessment of the risk of interstitial condensation for the specific construction should be carried out in accordance with BS 5250 : 2021 using a declared water vapour resistance factor (μ) of 4.4.

3.2.3 Voids below suspended timber ground floors must be ventilated. Ventilation may be achieved by installing vents not less than 1500 mm²·m⁻¹ run of external wall or 500 mm²·m⁻² of floor area, whichever is the greater. Ventilation openings must be arranged to prevent the ingress of rain, snow, birds and small mammals and the risk of subsequent blockage by other building operations.

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 characteristics.

6.1 Thermal conductivity

The product was tested for thermal conductivity and the result is given in Table 5.

Product assessed	Assessment method	Requirement	Result
H ₂ Foam Lite E (LD-C-50 v8E)	BS EN 14315-1 : 2013	Declared conductivity value (λ_D)	0.039 W·m ⁻¹ ·K ⁻¹

6.2 Conservation of fuel and power

6.2.1 Example U-values are given in Table 6.

Table 6 U values — suspended timber ground floors⁽¹⁾⁽²⁾⁽³⁾⁽⁴⁾⁽⁵⁾⁽⁶⁾⁽⁷⁾

Design U value (W·m ⁻² ·K ⁻¹)	H ₂ Foam Lite E (LD-C-50 v8E) thickness (mm)				
	P/A ratio (m·m ²)				
	0.2	0.4	0.6	0.8	1.0
0.11	(8)	(8)	(8)	(8)	(8)
0.12	(8)	(8)	(8)	(8)	(8)
0.13	(8)	(8)	(8)	(8)	(8)
0.15	200	(8)	(8)	(8)	(8)
0.18	140	185	200	(8)	(8)
0.22	95	135	150	160	165
0.25	70	110	125	135	140

(1) Floor construction — 22 mm thick chipboard floor finish ($\lambda = 0.13 \text{ W}\cdot\text{m}^{-1}\cdot\text{K}^{-1}$), on timber floor joists ($\lambda = 0.13 \text{ W}\cdot\text{m}^{-1}\cdot\text{K}^{-1}$) (11%)

(2) The depth of the joists = 100 to 200 mm depending on the depth of insulation between floor joists (11%) based on BR 443 : 2019 (nogging every 3 metres at 38 mm wide)

(3) Edge insulation not included

(4) Ground conductivity $1.5 \text{ W}\cdot\text{m}^{-1}\cdot\text{K}^{-1}$

(5) Wall thickness at the floor perimeter (w) = 0.3 m

(6) Supporting wall (U_w) $1.5 \text{ W}\cdot\text{m}^{-2}\cdot\text{K}^{-1}$

(7) Ventilation area (ϵ) $0.0015 \text{ m}^2\cdot\text{m}^{-1}$

(8) See section 6.2.4

6.2.2 The U value of a completed floor will depend on the insulation thickness, the perimeter/area ratio and the floor type.

6.2.3 The product can contribute towards a construction satisfying the national Building Regulations in respect of energy economy and heat retention.

6.2.4 For improved energy or carbon savings, designers must consider appropriate fabric/services measures.

7 Sustainable use of natural resources

Not applicable.

8 Durability

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

8.2 Data were assessed for the following characteristics given in Table 7.

Table 7 Dimensional stability and water absorption

Product assessed	Assessment method	Requirement	Result
H ₂ Foam Lite E (LD-C-50 v8E)	Dimensional stability to BS EN 1604 : 2013 (70°C and 90-100% RH for 48 hours)	Value achieved	Length, width and thickness $\leq 1.5 \%$ change
H ₂ Foam Lite E (LD-C-50 v8E)	Dimensional stability to BS EN 1604 : 2013 (-20°C for 48 hours)	Value achieved	Length, width and thickness $\leq 1.5 \%$ change
H ₂ Foam Lite E (LD-C-50 v8E) 50 mm thickness	Short-term water absorption by partial immersion to ČSN EN ISO 29767 : 2020 (Method B)	Value achieved	$0.3 \text{ kg}\cdot\text{m}^{-2}$

8.3 Service life

Under normal service conditions, the product will have a life 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 Timber floor constructions must be designed and constructed in accordance with the relevant recommendations of:

- BS 5250 : 2021
- BS EN 351-1 : 2007
- BS EN 1995-1-1 : 2004 and its UK National Annex.

9.1.3 Construction elements must be designed and constructed to incorporate the normal precautions against moisture ingress before application of the product.

9.1.4 The product must not come into direct contact with flue pipes, chimneys, or other heat-producing appliances (see section 2).

9.1.5 The product forms a strong bond with clean, dry substrates. This must be considered when specifying the product or anticipating future alterations.

9.1.6 The airspace void under the suspended ground floor must be a minimum of 150 mm deep and must be ventilated (see section 3). Care must be taken to ensure that ventilation grilles in the external walls are maintained clear of foam insulation and there is no obstruction to the underfloor ventilation.

9.1.7 In England and Wales, floors will limit the risk of surface condensation adequately where the thermal transmittance (U value) does not exceed $0.7 \text{ W}\cdot\text{m}^{-2}\cdot\text{K}^{-1}$ at any point and the junctions with other elements are designed in accordance with section 6 of this Certificate.

9.1.8 For buildings in Scotland, constructions will be acceptable where the thermal transmittance (U value) of the floor does not exceed $1.2 \text{ W}\cdot\text{m}^{-2}\cdot\text{K}^{-1}$ at any point, and the floor is designed and constructed in accordance with the relevant parts of BS 5250 : 2021. Further guidance may be obtained from BRE Report BR 262 : 2002 and section 6 of this Certificate.

9.1.9 To comply with the requirements of the *Health and Safety at Work etc. Act 1974*, Section 4, it is essential that there is an exchange of information between the client and the installer before spray operations commence on any site. Existing health hazards and those brought into the premises by the installer must be discussed, and measures agreed to deal with them effectively.

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 and the Certificate holder's instructions. A summary of instructions and guidance is provided in Annex A.

9.2.3 A pre-installation survey must be carried out and documented to ensure that the construction is suitable for the application of the product.

9.2.4 Existing constructions must be in a good state of repair, with no evidence of rain penetration or damp. Defects must be made good prior to installation.

9.2.5 Installation must not be carried out until the moisture content of any timber flooring is less than 20% by mass.

9.2.6 De-rating of electric cables must be considered in areas where the product restricts the flow of air. The use of suitable conduit or trunking is recommended.

9.2.7 The process for the installation of the product may produce a build-up of harmful vapours. The requirements of the *HBS European Technical Training Manual* and the product safety data sheets issued to installers, must be followed at all times.

9.2.8 The building must be well-ventilated during the spraying process as some vapours may sink to lower parts of the building.

9.2.9 If vapour levels need to be measured, methods must be those recommended by the Health and Safety Executive. Certain applications (eg, confined spaces) require the use of extractor fans as recommended by the Certificate holder.

9.2.10 To minimise the hazards of spraying, the following points must be observed:

- the installer must wear appropriate protective gear, including a full-face NIOSH-approved fresh air respirator, protective overalls, gloves and boots
- other than the installer, individuals must be kept away from the application area. No unprotected individuals must be in the structure where the application is being conducted
- the spray gun must never be left unattended
- the spray gun must only be pointed at the surface or, when not in use, at the floor
- the product must not be installed if wind is a concern – tarpaulins or other measures must be used to block it
- cleaning the spray gun requires use of a solvent to break down and/or remove the reacted components; therefore, to prevent exposure to the components and the solvent, proper protection must be worn.

9.2.11 Whilst spraying, care must be taken to minimise the degree of overspray, a fine mist of particles that can travel considerable distances and adhere strongly to surfaces it lands on.

9.3 Workmanship

Practicability of installation was assessed by the BBA on the basis of the Certificate holder's information and a site visit to witness an installation in progress. To achieve the performance described in this Certificate, the product must only be installed by installers who have been trained and approved by the Certificate holder. Details of Approved Installers are available from the Certificate holder.

9.4 Maintenance and repair

The product, once installed, does not require any maintenance, and has suitable durability provided the floor structure is maintained in good condition, and the void below the floor is ventilated.

10 **Manufacture**

10.1 The production processes for the product 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 product is delivered to site in drums of up to 250 kg capacity, bearing the product name, company name, batch number and the BBA logo incorporating the number of this Certificate.

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

11.2.1 Drums must be stored in a well-ventilated area, between 15 and 32°C, and away from possible ignition sources.

11.2.2 The drums must be protected from frost.

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

Construction (Design and Management) Regulations 2015

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

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

CLP Regulations

The Certificate holder has taken the responsibility of classifying and labelling the product under the *GB CLP Regulation* and 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 Sheets.

UKCA marking

The Certificate holder has taken the responsibility of UKCA marking the product in accordance with Designated Standard EN 14315-1 : 2013.

Management Systems Certification for production

The management system of the manufacturer has been assessed and registered as meeting the requirements of BS EN ISO 9001 : 2015 by BSI (Certificate FM 82460).

Additional information on installation

Procedure

- A.1 Building elements to be insulated must be assessed for suitability, and any necessary repairs carried out. Elements must be weathertight before application of the product. The positioning and access to services should also be considered.
- A.2 The product should be stored, handled and applied in accordance with the Certificate holder's instructions and this Certificate.
- A.3 The product should be spray-applied to clean and dry substrates, and built up in layers, up to a maximum thickness of 200 mm.
- A.4 A barrier (such as thin plywood or a vapour permeable membrane) must be fixed to the underside of the joists to contain the foam. The product is then sprayed from above into the cavity formed by the barrier and the joists. When cured, the excess foam is trimmed flush with the joists and the flooring board installed.

Bibliography

- BRE Report BR 262 : 2002 *Thermal insulation: avoiding risks*
- BRE Report BR 443 : 2019 *Conventions for U-value calculations*
- BS 5250 : 2021 *Management of moisture in buildings. Code of practice*
- BS EN 351-1 : 2007 *Durability of wood and wood-based products — Preservative-treated solid wood — Classification of preservative penetration and retention*
- BS EN 823 : 2013 *Thermal insulating products for building applications — Determination of thickness*
- BS EN 1602 : 2013 *Thermal insulating products for building applications — Determination of the apparent density*
- BS EN 1604 : 2013 *Thermal insulating products for building applications — Determination of dimensional stability under specified temperature and humidity conditions*
- BS EN 1995-1-1 : 2004 + A2 : 2014 *Eurocode 5 : Design of timber structures — General — Common rules and rules for buildings*
- NA to BS EN 1995-1-1 : 2004 + A1 : 2008 UK National Annex to *Eurocode 5 : Design of timber structures — General — Common rules and rules for buildings*
- BS EN 14315-1 : 2013 *Thermal insulating products for buildings — In-situ formed sprayed rigid polyurethane (PUR) and polyisocyanurate (PIR) foam products — Specification for the rigid foam spray system before installation*
- BS EN ISO 9001 : 2015 *Quality management systems — Requirements*
- ČSN EN 12086 : 2013 *Thermal insulating products for building applications — Determination of water vapour transmission properties*
- ČSN EN 13501-1 : 2019 *Fire classification of construction products and building elements — Classification using test data from reaction to fire tests*
- ČSN EN ISO 29767 : 2020 *Thermal insulating products for building applications — Determination of short-term water absorption by partial immersion*

Conditions

1 This Certificate:

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

2 Publications, documents, specifications, legislation, regulations, standards and the like referenced in this Certificate are those that were current and/or deemed relevant by the BBA at the date of issue or reissue of this Certificate.

3 This Certificate will be displayed on the BBA website, and the Certificate Holder is entitled to use the Certificate and Certificate logo, provided that the product and its manufacture and/or fabrication, including all related and relevant parts and processes thereof:

- are maintained at or above the levels which have been assessed and found to be satisfactory by the BBA
- continue to be checked as and when deemed appropriate by the BBA under arrangements that it will determine
- are reviewed by the BBA as and when it considers appropriate.

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

5 In issuing this Certificate the BBA is not responsible and is excluded from any liability to any company, firm, organisation or person, for any matters arising directly or indirectly from:

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

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