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Agrément Certificate
16/5312
Product Sheet 1

JACKOBOARD

JACKOBOARD PLANO, Q-BOARD AND DOMOBOARD TILEBACKER BOARDS

This Agrément Certificate Product Sheet⁽¹⁾ relates to Jackoboard⁽²⁾ Plano, Q-Board and Domoboard Tilebacker Boards for use as an intermediate substrate to ceramic and natural stone tiling, for internal use on walls and floors.

(1) Hereinafter referred to as 'Certificate'.

(2) Jackoboard is a registered trademark.

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

Performance in relation to fire — the boards are classified as Class E in accordance with BS EN 13501-1 : 2007 and Class 1 when tested in accordance with BS 476-7 : 1997 (see section 6).

Impact resistance — tiled boards will resist the effects of the normal impacts expected in service (see section 7).

Floor loading — the boards are satisfactory for use in domestic and residential applications (see section 8).

Condensation risk — the use of the boards will reduce the risk of condensation (see section 10).

Durability — under normal conditions the boards will have a service life commensurate with the structure into which they are installed (see section 14).

The BBA has awarded this Certificate to the company named above for the products described herein. These products have been assessed by the BBA as being fit for their intended use provided they are installed, used and maintained as set out in this Certificate.

On behalf of the British Board of Agrément

Date of First issue: 27 April 2016

John Albon — Head of Approvals
Construction Products

Claire Curtis-Thomas
Chief Executive

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

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

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Regulations

In the opinion of the BBA, Jackoboard Plano, Q-Board and Domoboard Tilebacker Boards, 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:	B2(1)	Internal fire spread (linings)
Comment:		The products meet this Requirement in every purpose group. See sections 6.1 to 6.3 of this Certificate.
Requirement:	C2(c)	Resistance to moisture
Comment:		Walls incorporating the products can meet this Requirement. See section 10 of this Certificate.
Regulation:	7	Materials and workmanship
Comment:		The products are acceptable. See section 14 and the <i>Installation</i> part of this Certificate.



The Building (Scotland) Regulations 2004 (as amended)

Regulation:	8(1)	Durability, workmanship and fitness of materials
Comment:		The products are acceptable. See section 14 and the <i>Installation</i> part of this Certificate.
Regulation:	9	Building standards applicable to construction
Standard:	2.5	Internal linings
Comment:		The products can contribute to satisfying this Standard, with reference to clauses 2.5.1 ⁽¹⁾⁽²⁾ and 2.5.2 ⁽¹⁾⁽²⁾ . See sections 6.1 to 6.3 of this Certificate.
Standard:	3.15	Condensation
Comment:		The products can contribute to satisfying this Standard, with reference to clauses 3.15.1 ⁽¹⁾ , 3.15.4 ⁽¹⁾ and 3.15.5 ⁽¹⁾ . See section 10 of this Certificate.
Standard:	7.1(a)	Statement of sustainability
Comment:		The products can contribute to meeting the relevant requirements of Regulation 9, Standards 1 to 6, and therefore will contribute to a construction meeting a bronze level of sustainability as defined in this Standard.
Regulation:	12	Building standards applicable to conversions
Comment:		All comments given for the products 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)(iii)(iv)(b)(i)	Fitness of materials and workmanship
Comment:		The products are acceptable. See section 14 and the <i>Installation</i> part of this Certificate.
Regulation:	29	Condensation
Comment:		The products are acceptable. See sections 10.1 and 10.2 of this Certificate.
Regulation:	34(a)(b)	Internal fire spread — Linings
Comment:		The products meet this Regulation. See sections 6.1 to 6.3 of this Certificate.

Construction (Design and Management) Regulations 2015

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

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

See sections: 1 *Description* (1.2), 3 *Delivery and site handling* (3.1 and 3.3 to 3.6) and 15 *General* (15.2) of this Certificate.

Additional Information

NHBC Standards 2016

NHBC accepts the use of Jackoboard Plano, Q-Board and Domoboard Tilebacker Boards, provided they are installed, used and maintained in accordance with this Certificate, in relation to *NHBC Standards, Part 9 Finishes, Chapters 9.2 Wall and ceiling finishes and 9.3 Floor finishes*.

1 Description

1.1 Jackoboard Plano, Q-Board and Domoboard Tilebacker Boards are made from extruded polystyrene, each side faced with a thin layer of polymer-modified cement mortar reinforced with a glassfibre mesh.

1.2 The boards are available in the nominal dimensions and weights given in Table 1, and are distinguished by the colour of the insulation core as detailed in Table 2.

Table 1 Nominal dimensions

Thickness (mm)	Board dimensions ⁽¹⁾ (width x length) (mm)	Weight per board (kg)
4	1200 x 600	2.15
6	1200 x 600	2.26
10	1200 x 600 2400 x 600	2.38 4.75
12	1200 x 600 2600 x 600	2.43 4.86
20	1200 x 600 2400 x 600	2.66 5.33
30	1200 x 600 2400 x 600	2.95 5.90
40	1200 x 600 2400 x 600	3.24 6.48
50	1200 x 600 2400 x 600	3.53 7.06
60	1200 x 600 2400 x 600	3.82 7.63
80	1200 x 600 2400 x 600	4.4 8.8

(1) Boards with other dimensions are available by special order.

Table 2 Board type and insulation colour

Product	Colour of insulation layer
Jackoboard Plano	lilac
Q-Board	red
Domoboard	grey

1.3 Ancillary items that may be used for installation of the products and are included in this assessment are:

- Jackoboard Glass Fibre Tape — for reinforcing abutting edges of the boards
- Jackoboard Sealing Tape — for reinforcing and sealing abutting edges of the boards when used in wet areas
- Jackoboard Board Fix — a modified silane (MS) type adhesive and sealing agent for glueing and sealing joints between boards in wet areas
- construction board discs — 36 mm diameter metal disc washers used in conjunction with suitable screws to mechanically fix boards to wood studs
- metal disc plugs (dowels) — metal plugs with a minimum 35 mm diameter disc heads for mechanically fixing the boards.

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

- metal anchors
- flexible cementitious tile adhesive conforming to BS EN 12004 : 2007
- flexible grout conforming to BS EN 13888 : 2009.

Details of suitable products/specifications may be obtained from the Certificate holder.

2 Manufacture

2.1 The boards are manufactured by cutting extruded polystyrene insulation blocks to the required thickness, screeding a polymer-modified mortar compound on both faces whilst embedding a glass reinforcement mesh, and drying at a controlled temperature.

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 Jackson Insulation GmbH has been assessed and registered as meeting the requirements of BS EN ISO 9001 : 2008 by DQS GmbH (Certificate 067674 QM08 UM).

2.4 The products are manufactured in Germany by the Certificate holder and are distributed in the UK by TileBacker Ltd, Unit 1, Hindley Industrial Estate, 3 Ormside Close, Hindley Green, Wigan, WN2 4HR. Tel: 01204 221089, Fax 01942 253711, e-mail: info@tile-backer.co.uk

3 Delivery and site handling

3.1 The boards are supplied on mini or maxi pallets. The maximum quantity of boards per pallet will depend on the thickness and size of board. The Certificate holder should be consulted for details.

3.2 The boards must be stored flat on a dry level surface, protected from extreme temperatures and sources of contamination.

3.3 Jackoboard Board Fix is supplied in 290 ml cartridges in cardboard boxes, 12 cartridges per box.

3.4 Jackoboard Glass Fibre Tape is supplied in rolls, 125 mm wide x 25 m long, in boxes of 10 rolls.

3.5 Jackoboard Sealing Tape is supplied in single rolls, 120 mm wide and 10 m or 50 m long.

3.6 The Certificate holder has taken the responsibility of classifying and labelling the products 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 Jackoboard Plano, Q-Board and Domoboard Tilebacker Boards.

Design Considerations

4 General

4.1 Jackoboard Plano, Q-Board and Domoboard Tilebacker Boards are satisfactory for use on internal walls and floors as an intermediate substrate to ceramic and natural stone tiling.

4.2 The boards are suitable for use as part of a system comprising tiles, flexible cement-based tile adhesive and grout, to install a stable, waterproof tile substrate in showers and wet areas. The Certificate holder should be consulted for suitable adhesives and grouts.

4.3 The boards may be used on the following substrates:

- on even walls of sound brick, block or concrete and floors of concrete or timber boards, fixed using a thin bed of flexible cementitious tile adhesive
- on uneven walls, partially bonded using dabs of flexible cementitious tile adhesive supported with mechanical fixings, ie metal disc plugs (dowels) with a minimum 35 mm diameter disc head
- on timber stud walls using 36 mm construction board discs and suitable screws
- on cementitious and wood floors, fixed using a thin bed of flexible cementitious tile adhesive and with suitable screws when used on wood floors.

4.4 On walls, where a thin bed adhesive method is used, additional mechanical fixing using metal disc plugs with a disc diameter of at least 35 mm must be used where contamination that may affect the adhesion is present, eg paint layers.

4.5 The metal disc plugs must be used in accordance with the manufacturer's instructions, ensuring that the wall is adequately sound to accept them. The suitability of the fixings for use on any particular substrate is outside the scope of this Certificate.

4.6 Boards 10 mm thick or greater can also be fixed to stud walling/partitions. The maximum distance between the stud centres must be 300 mm for the 10 mm boards, and 600 mm for boards ≥ 20 mm thick.

4.7 Masonry walls of new buildings should be designed and constructed in accordance with the relevant parts of PD 6697 : 2010, BS EN 1996-2 : 2006 and BS EN 1996-1-2 : 2005. External walls of existing buildings should be in good condition and resist the penetration of moisture to the internal face.

4.8 Floor substrates must be rigid and able to support the dead and imposed loads expected in service.

4.9 When the boards are fixed to timber battens, services can normally be incorporated in the void behind the boards, making chasing of the wall unnecessary. When using adhesive systems, or where the services have a greater depth than the void, the wall should be chased rather than the boards. It is recommended that services penetrating the boards, eg light switches and power outlets, are kept to a minimum.

4.10 The installation of the boards requires careful detailing around doors and windows to achieve a satisfactory finish. New work should be designed to accommodate the thickness of the overall installation.

4.11 If present, mould or fungal growth on the substrate should be treated prior to fixing the boards using a suitable anti-fungal product that will not affect the adhesion of the adhesive. The Certificate holder can advise on suitable products.

4.12 When using adhesive fixing methods, it is essential to establish, before installation, that a satisfactory bond can be achieved between the wall and the adhesive. If difficulty is experienced with adhesion, advice should be sought from the Certificate holder.

4.13 Floor tiles used with the boards must have the minimum dimensions of 100 mm x 100 mm x 7 mm, and must have suitable properties for their intended use, eg slip resistance.

5 Practicability of installation

Installation of the boards can be carried out by a competent general builder, or a contractor, experienced with these types of products.

6 Performance in relation to fire



6.1 When tested in accordance with BS EN ISO 11925-2 : 2010 and classified in accordance with BS EN 13501-1 : 2007, untiled 20 mm and 60 mm thick boards achieved a Class E rating.

6.2 When tested to BS 476-7 : 1997, a 20 mm thick board achieved a Class 1 rating.

6.3 The above classifications may not be achieved when the product is covered/overcoated, and care should, therefore, be taken to select a finish with the appropriate performance in fire for the installation in question.

6.4 Where recessed lighting is to be used, the Certificate holder must be consulted for suitable lighting specifications.

7 Impact resistance

Tiled boards will possess a satisfactory resistance to impact damage.

8 Floor loading

8.1 For design purposes, the compressive strength of the boards at 10% compression should be taken as 250 kN·m⁻² [Level CS(10\Y)250 as defined in BS EN 13164 : 2012].

8.2 The boards are capable of resisting a uniformly-distributed load of 1.5 kN·m⁻² with minimal deflection.

8.3 The level of resistance to concentrated loads will depend on the size and strength of the tiles used to cover the boards.

8.4 Provided the tiles selected are correctly specified to resist the designed distributed and concentrated loads, the boards are suitable for use in Categories A1 and A2 as defined in the UK National Annex to BS EN 1991-1-1 : 2002, Table NA.2.

9 Thermal insulation

9.1 The boards will provide thermal insulation.

9.2 The declared thermal conductivity value (λ_D) for boards up to 60 mm thick is 0.034 W·m⁻¹·K⁻¹ and for 80 mm thick boards is 0.035 W·m⁻¹·K⁻¹. For design purposes, a moisture correction factor should be considered in accordance with BS EN ISO 10456 : 2007.

10 Condensation

Interstitial condensation



10.1 The boards can offer significant resistance to water vapour transmission, provided all joints and penetrations are taped and sealed and the tiling is bonded and grouted in accordance with the Certificate holder's instructions.

10.2 When condensation risk assessments are carried out, the water vapour transmission factor (μ) of the untiled boards may be taken as 150.



10.3 Walls incorporating the products can be designed to meet the requirements of the national Building Regulations with regard to surface condensation.

11 Proximity of flues and heat-producing appliances

When boards are installed in close proximity to hot flue pipes and/or heat-producing appliances, the provisions of the national Building Regulations must be followed, to minimise the risk of damage to the boards owing to radiated, convected and/or conducted heat:

England and Wales – Approved Document J

Scotland – Mandatory Standard 3.19⁽¹⁾⁽²⁾

(1) Technical Handbook (Domestic).

(2) Technical Handbook (Non-Domestic).

Northern Ireland – Technical Booklet L.

12 Wall-mounted fittings

Objects other than lightweight items must be fixed through the board into the wall, or other supporting structure behind, using suitable proprietary fixings. The recommendations of the Certificate holder must be followed.

13 Maintenance

As the products are confined within the wall structure and have suitable durability (see section 14), maintenance is not required. However, any damage occurring before tiling must be repaired (see section 17).

14 Durability



The durability of the products is satisfactory and, if used in accordance with this Certificate and the Certificate holder's instructions and fixed to a satisfactory, stable and durable background, the products will have a life commensurate with the structure in which they are installed.

Installation

15 General

15.1 Jackoboard Plano, Q-Board and Domoboard Tilebacker Boards are installed on internal walls and floors to provide a substrate for the application of ceramic and natural stone tiles.

15.2 The boards can be cut with either a kraft knife or a saw. When working in enclosed areas, precautions should be taken to ensure that dust levels are controlled in accordance with the current issue of EH40/2005 *Workplace exposure limits*.

15.3 Installation of the boards must be in accordance with the Certificate holder's instructions and the provisions of this Certificate.

15.4 Boards must not bridge movement joints. These must be carried through the board/tile bed and sealed in an appropriate manner.

15.5 On floors, the boards are laid in a staggered pattern to ensure that four corners do not meet at one point.

15.6 In wall applications, the boards may be aligned vertically or horizontally.

15.7 When boards are fixed using adhesive, tests must be carried out to ensure that adequate adhesion can be achieved. The advice of the Certificate holder must be sought.

15.8 Boards less than 10 mm thick must only be used fully bonded, and must not be used spot fixed or on studding.

16 Procedure

Fixing to solid walls

16.1 The boards may be fixed to sound, smooth and level masonry and concrete walls using a thin, solid bed of flexible cementitious tile adhesive, used in accordance with the manufacturer's instructions.

16.2 Any residual material on the substrate from previous coatings must be removed.

16.3 Where the adhesion of the boards cannot be guaranteed, they must also be mechanically fixed using suitable disc plugs with a minimum head diameter of 35 mm. The fixings must be installed once the adhesive has set, in accordance with the Certificate holder's instructions.

16.4 On uneven substrates, boards ≥ 20 mm thick can be secured in place using adhesive dabs, and gently tapped into place with a rubber mallet, ensuring that they form a level surface with a maximum gap between the board and substrate of 10 mm. Once the dabs of adhesive are dry, disc plugs are fixed through the dabs into the substrate in accordance with the manufacturer's instructions.

Fixing to stud walls

16.5 Boards 10 mm thick and greater can be mechanically fixed onto timber studding. The maximum unsupported span is 300 mm for boards less than 20 mm thick and 600 mm for boards 20 mm or more thick.

16.6 The boards are fixed to the timber studs using the construction board discs, with appropriate screws that must be at least 20 mm longer than the thickness of the board to be fixed. The fixings should be placed at least 20 mm away from the board edges and screwed tight so that the disc is flush with the board surface.

16.7 All board edges must be supported.

16.8 For boards ≥ 20 mm thick, fixings should be applied equally spaced to each supporting timber, ensuring a minimum of 6 fixings per board for boards 1200 mm long, and 10 fixings per board for boards 2400 mm long. For thinner boards where studs are spaced at 300 mm centres, a minimum of 8 and 14 fixings per board, equally spaced, must be used for the 1200 mm and 2400 mm long boards respectively.

16.9 In dry areas the joints between the boards should be reinforced using Jackoboard Glass Fibre Tape. In wet areas, joints must be sealed and reinforced using Jackoboard Sealing Tape, or using Jackoboard Board Fix and reinforced with Jackoboard Glass Fibre Tape.

Fixing to concrete and other solid floors

16.10 A suitable flexible cementitious adhesive is applied to the prepared floor using a notched trowel, ensuring that the substrate is fully covered to ensure that no cavities remain beneath the boards when laid.

16.11 Boards should be a minimum thickness of 10 mm and firmly bedded into the adhesive with staggered joints in a brick-bond pattern, ensuring a suitable gap between the board and wall to allow for expansion.

16.12 When the adhesive is cured, the joints between the boards are taped with Jackoboard Glass Fibre Tape for boards intended for use in dry areas, or, for use in wet areas, with Jackoboard Sealing Tape. Alternatively, in wet areas the joints can be sealed with Jackoboard Board Fix and reinforced with Jackoboard Glass Fibre Tape.

Fixing to timber floors

16.13 The boards can only be installed on rigid timber floors without gaps and should not be used directly over planks.

16.14 The existing floor must be flat and secure before fixing the boards.

16.15 The boards are fixed in accordance with the method described for fixing the boards to concrete and other solid floors (see sections 16.10 to 16.12) supplemented with at least 5 evenly-spaced screws and 36 mm diameter disc washers. In wet areas, it is recommended that the fixing hole is filled with silicone sealant prior to fully inserting the screw.

Tile fixing

16.16 The surface of the boards must be free from dust and other contamination that may adversely affect adhesion of the tiles.

16.17 Tiles are fixed to the board using a suitable flexible cement-based tile adhesive applied in accordance with the manufacturer's instructions and the relevant parts of BS 8000-11 : 2011 and BS 5385 : 2009.

16.18 On walls, the maximum tile weight must not exceed $100 \text{ kg}\cdot\text{m}^{-2}$. On stud walls with boards thinner than 20 mm the maximum tile weight must not exceed $60 \text{ kg}\cdot\text{m}^{-2}$.

16.19 When fixing to floors, tiles should be a minimum of 100 mm by 100 mm x 7 mm in size, and a solid-bed fixing technique used to ensure that cavities do not remain under the tiles.

16.20 Once the tile bed has hardened sufficiently, joints between tiles can be grouted using a suitable cement-based flexible grout.

16.21 The Certificate holder must be consulted for suitable adhesives and grouts.

17 Repair

In the event of damage, repairs can be carried out by cutting out/removing damaged boards and tiles and replacing in accordance with the relevant parts of section 16.

18 Tests

Tests were conducted on Jackoboard Plano, Q-Board and Domoboard Tilebacker Boards to determine:

- dimensional accuracy
- impact resistance of tiled boards⁽¹⁾ (soft and hard body)
- flexural strength of wet and dry samples
- pull-through strength of fixings
- bond strength of ceramic tiles to boards⁽¹⁾
- watertightness of joints.

(1) Using Tilemaster Rapid Setaflex floor and wall adhesive, a rapid-set, flexible cement-based tile adhesive which conforms to BS EN 12004 : 2007, Class C2 FT S1.

19 Investigations

19.1 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.

19.2 Test data from independent laboratories were assessed to establish:

- reaction to fire
- surface spread of flame
- compression characteristics of the foam core.

19.3 Thermal conductivity test data were reviewed and the declared value for thermal conductivity was confirmed.

19.4 A visit was made to a site in progress to assess the practicability of installation.

Bibliography

BS 5385 : 2009 *Wall and floor tiling*

BS 8000-11 : 2011 *Workmanship on building sites — Internal and external wall and floor tiling — Ceramic and agglomerated stone tiles, natural stone and terrazzo tiles and slabs, and mosaics — Code of practice*

BS EN 476-7 : 1997 *Fire tests on building materials and structures — Method of test to determine the classification of the surface spread of flame of products*

BS EN 1991-1-1 : 2002 *Eurocode 1 : Action 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 : Action on structures — General actions — Densities, self-weight, imposed loads for buildings*

BS EN 1996-1-2 : 2005 *Eurocode 6 : Design of masonry structures — General rules — Structural fire design*

BS EN 1996-2 : 2006 *Eurocode 6 : Design of masonry structures — Design considerations, selection of materials and execution of masonry*

BS EN 12004 : 2007 *Adhesives for tiles — Requirements, evaluation of conformity, classification and designation*

BS EN 13164 : 2012 *Thermal insulation products for buildings — Factory made extruded polystyrene foam (XPS) products — Specification*

BS EN 13501-1 : 2007 *Fire classification of construction products and buildings elements — Classification using test data from reaction to fire tests*

BS EN 13888 : 2009 *Grout for tiles — Requirements, evaluation of conformity, classification and designation*

BS EN ISO 9001 : 2008 *Quality management systems — Requirements*

BS EN ISO 10456 : 2007 *Building materials and products — Hygrothermal properties — Tabulated design values and procedures for determining declared and design thermal values*

PD 6697 : 2010 *Recommendations for the design of masonry structure to BS EN 1996-1-1 and BS EN 1996-2*

20 Conditions

20.1 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.

20.2 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.

20.3 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.

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

20.5 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.

20.6 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.