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Agrément Certificate

88/1966

Product Sheet 1 Issue 9

IKO DAMP PROOF COURSES

IKO HYLOAD PERMABIT DAMP-PROOF COURSE SYSTEM

This Agrément Certificate Product Sheet⁽¹⁾ relates to the IKO Hyload Permabit Damp-proof Course System, for use in providing a horizontal, vertical or stepped damp-proof course, including cavity trays, in either solid or cavity walls of brick, block, stone, concrete and timber frame constructions.

(1) Hereinafter referred to as 'Certificate'.

The assessment includes

Product factors:

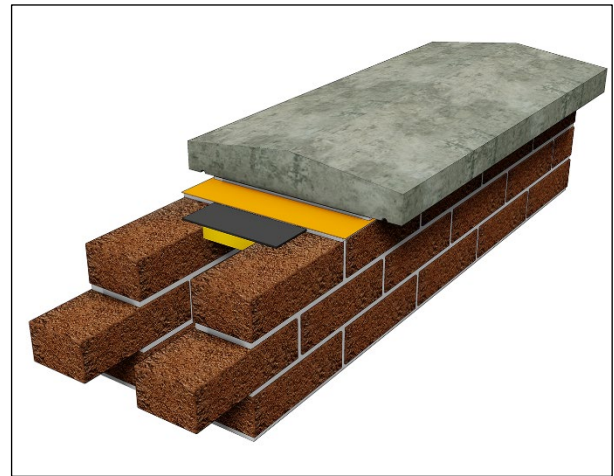
- compliance with Building Regulations
- compliance with additional regulatory or non-regulatory information where applicable
- evaluation against technical specifications
- assessment criteria and technical investigations
- uses and design considerations

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 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 Ninth issue: 20 September 2024

Originally certified on 5 January 1988

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 the IKO Hyload Permabit Damp-proof Course 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 Building Regulations 2010 (England and Wales) (as amended)

Requirement:	A1	Loading
Comment:		The system will contribute to satisfying this Requirement. See section 1 of this Certificate.
Requirement:	B4(1)	External fire spread
Comment:		The system is restricted, in some cases, by this Requirement. See section 2 of this Certificate.
Requirement:	C2(a)(b)	Resistance to moisture
Comment:		The system, including joints, will enable a structure to satisfy this Requirement. See section 3 of this Certificate.
Regulation:	7(1)	Materials and workmanship
Comment:		The system is acceptable. See sections 8 and 9 of this Certificate.



The Building (Scotland) Regulations 2004 (as amended)

Regulation:	8(1)	Fitness and durability of materials and workmanship
Comment:		The system is acceptable. See sections 8 and 9 of this Certificate.
Regulation:	9	Building standards - construction
Standard:	1.1(a)(b)	Structure
Comment:		The system will contribute to satisfying this Standard, with reference to clauses 1.1.1 ⁽¹⁾⁽²⁾ and 1.1.3 ⁽¹⁾⁽²⁾ . See section 1 of this Certificate.
Standard:	3.4	Moisture from the ground
Standard:	3.10	Precipitation
Comment:		The system, including joints, will contribute to satisfying with these Standards, with reference to clauses 3.4.1 ⁽¹⁾⁽²⁾ and 3.10.1 ⁽¹⁾⁽²⁾ . See section 3 of this Certificate.
Standard:	7.1(a)	Statement of sustainability
Comment:		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.
Regulation:	12	Building standards - conversion
Comment:		All comments given for 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(1)(a)(i)	Fitness of materials and workmanship
Comment:	(iii)(b)(i)	The system is acceptable. See sections 8 and 9 of this Certificate.
Regulation:	28(a)(b)	Resistance to moisture and weather
Comment:		The system, including joints, will contribute to satisfying this Regulation. See section 3 of this Certificate.
Regulation:	30(a)	Stability
Comment:		The system will contribute to satisfying this Regulation. See section 1 of this Certificate.
Regulation:	36(a)	External fire spread
Comment:		The system is restricted, in some cases, by this Regulation. See section 2 of this Certificate.

Additional Information

NHBC Standards 2024

In the opinion of the BBA, the IKO Hyload Permabit Damp-proof Course System, if installed, used and maintained in accordance with this Certificate, can satisfy or contribute to satisfying the relevant requirements in relation to *NHBC Standards*, Chapter 6.1 *External masonry walls*.

Fulfilment of Requirements

The BBA has judged the IKO Hyload Permabit Damp-proof Course System to be satisfactory for use as described in this Certificate. The system has been assessed for use in walls as a horizontal, vertical or stepped damp-proof course (DPC) (including cavity trays), in either solid or cavity walls of brick, block, stone, concrete and timber frame constructions.

ASSESSMENT

Product description and intended use

The Certificate holder provided the following description for the system under assessment. IKO Hyload Permabit Damp-proof Course is a black sheet material with rubber textured surfaces, which comprises a mixture of bitumen, polyethylene and propylene-based polymers, synthetic fibres and other additives.

The system comprises IKO Hyload Permabit Damp-proof Course, Hyload Preformed Cavity Tray Units and the IKO Hyload DPC Jointing System.

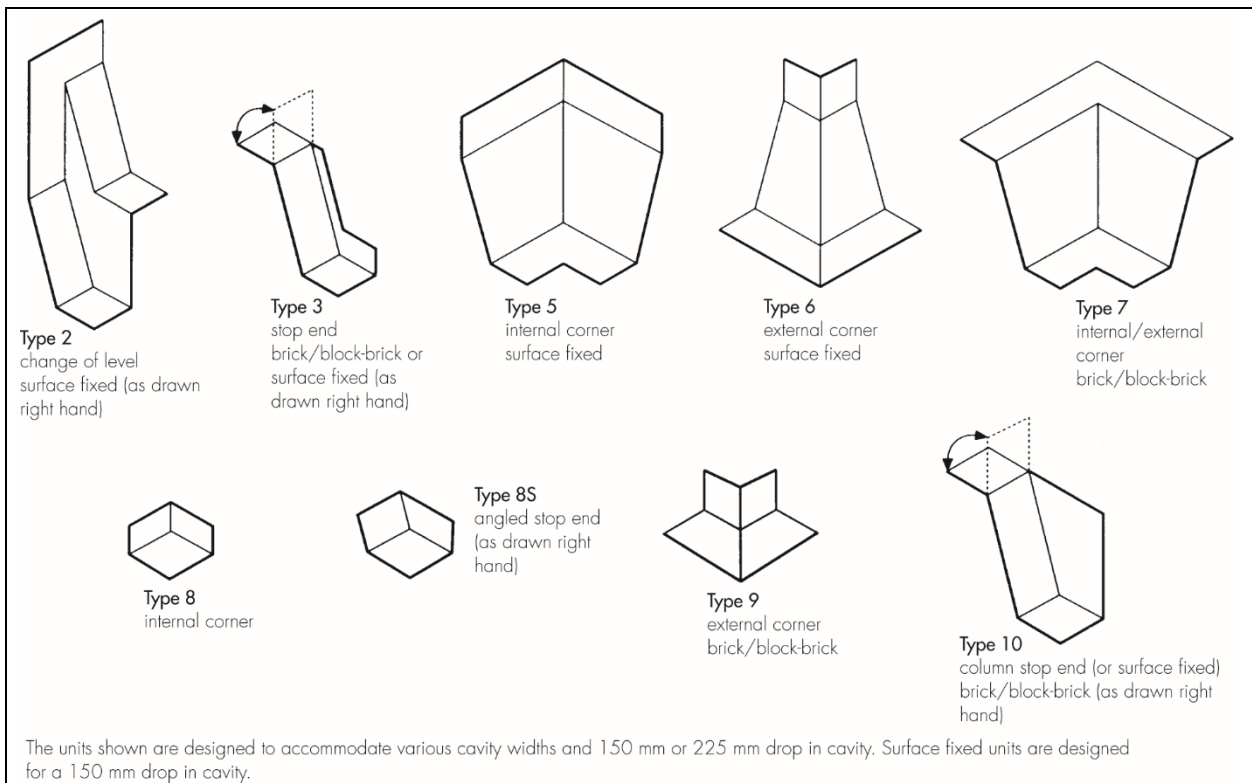
IKO Hyload Permabit Damp-proof Course has the nominal characteristics given in Table 1.

Table 1 Nominal characteristics

Characteristic (unit)	Value
Thickness (mm)	1.25
Mass (kg·m ⁻²)	1.6
Roll length (m)	20.0
Roll widths	Standard wall widths or up to 1 m

IKO Hyload Preformed Cavity Tray Units for Walls are made from 1.5 mm thick polymer sheet and are preformed, flexible units for angles in stepped or horizontal damp-proof coursing. Typical examples are shown in Figure 1. Cloaks to other designs can be fabricated to order.

Figure 1 IKO Hyload Preformed Cavity Tray Units



The IKO Hyload DPC Jointing System comprises the following items:

- IKO Hyload DPC Jointing Tape — a 100 mm wide self-adhesive tape, protected on both sides by silicone release paper
- IKO IKOpro SA Primer — used where required on concrete, brickwork, blockwork and steel
- IKO Hyload DPC Fixing Strip — a semi-rigid plastic strip, 25 mm by 3 mm by 2 m, pre-drilled at 150 mm centres

Product assessment – key factors

The system was assessed for the following key factors, and the outcome of the assessments are 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 characteristic.

1.1 Behaviour under load

1.1.1 On the basis of data assessed, the DPC will not extrude under load, up to the point of compressive failure of the wall, and will not adversely affect the ability of a properly designed and built wall to sustain and transmit compression load.

1.1.2 The stability of a wall in respect of lateral loads must be checked by a suitable experienced and competent individual in relation to the stresses permitted between the DPC and the mortar.

2 Safety in case of fire

Data were assessed for the following characteristic.

2.1 Reaction to fire

2.1.1 The Certificate holder has not declared a reaction to fire classification for the system to BS EN 13501-1 : 2018.

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

2.1.3 In England, other than when used as a cavity tray between two leaves of masonry, the system must not be used on buildings with a storey 18 m or more above ground level and which contain: one or more dwellings, an institution, a room for residential purposes, student accommodation, care homes, hospitals, sheltered housing or dormitories in boarding schools.

2.1.4 In Wales and Northern Ireland, other than when used as a cavity tray between two leaves of masonry the system must not be used on buildings with a storey 18 m or more above ground level and which 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, hospitals, sheltered housing or dormitories in boarding schools, and additionally in Northern Ireland, nursing homes and places of lawful detention.

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 build-up, which must be established on a case-by-case basis.

3 Hygiene, health and the environment

Data were assessed for the following characteristics.

3.1 Resistance to water and water vapour

3.1.1 Tests were conducted on IKO Hyload Permabit Damp-proof Course, and the results were assessed to determine resistance to water and water vapour permeability.

3.1.2 On the basis of data assessed, when correctly specified and installed, the system will provide an effective barrier against liquid water and water vapour, either from a source external to the structure or from one part of the structure to another.

3.2 Resistance to mechanical damage

3.2.1 Tests were conducted on IKO Hyload Permabit Damp-proof Course, and the results were assessed to determine tensile strength and elongation at break, impact resistance at room and low temperature.

3.2.2 Tests were conducted on Hyload Preformed Cavity Tray Units, and the results were assessed to determine joint strength, tensile strength, elongation and tear strength of sheet and welds.

3.2.3 Tests were conducted on the IKO Hyload DPC Jointing System and the results were assessed to determine shear strength of joints, peel strength of adhesive tape and ease of joint formation.

3.2.4 On the basis of data assessed, the system has sufficient strength properties to withstand the handling associated with installation and remain watertight.

4 Safety and accessibility in use

Not applicable.

5 Protection against noise

Not applicable.

6 Energy economy and heat retention

Not applicable.

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 system were assessed.

8.2 Tests were conducted on the IKO Hyload Permabit Damp-proof Course and Hyload Preformed Cavity Tray Units, and the result was assessed to determine flexibility at low temperatures and effect of ageing at high temperatures.

8.3 Tests were conducted on the IKO Hyload DPC Jointing System and the results were assessed to determine effect of water and heat ageing.

8.4 Based on knowledge of the system's materials, the system is compatible with the materials with which it will be in contact within normal construction. It is unaffected by timber preservatives of water-based solutions of salts. Where doubt exists as to the compatibility of materials in contact, the advice of the Certificate holder must be sought, but such advice is outside the scope of this Certificate.

8.5 Service life

Under normal service conditions, the system will have a life of 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 Constructions incorporating the system must comply with the general standards of good design practice are given in BS EN 1996-1-1 : 2005, BS EN 1996-1-2 : 2005, BS EN 1996-2 : 2006 and BS EN 1996-3 : 2006, and their UK National Annexes, and PD 6697 : 2019.

9.1.3 The system can be used in the circumstances defined in Table 2 *Structural considerations affecting the selection of DPCs* of BS 8215 : 1991 for a bitumen polymer DPC.

9.1.4 The presence of a DPC can reduce the shear and tensile (and therefore bending) strengths of a wall at that point, and designs may need to take account of this.

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.

9.2.3 Installation must follow normal good practice for the detailing of damp-proof courses, as set out in PD 6697 : 2019, and must be in accordance with the relevant clauses of BS 8000-0 : 2014, BS 8000-3 : 2020 and BS 8215 : 1991, BRE Digest 380, the Certificate holder's instructions and this Certificate.

9.2.4 As with all flexible damp-proof courses, care must be taken to avoid impact damage from sharp objects (eg trowels) during installation.

9.2.5 The DPC must extend through the full thickness of the wall or wall-leaf, including pointing, applied rendering or other facing material.

9.2.6 The DPC must be laid on a wet, even bed of mortar (perforations in adjacent courses of brickwork must be closed with mortar) and be laid flush or project beyond the finished face of the external leaf.

9.2.7 The DPC must always be sandwiched between wet mortar and not laid dry.

9.2.8 All lap joints in the system must have a minimum 100 mm overlap, be completely sealed with IKO Hyload DPC Jointing Tape and supported by a suitable joint system in accordance with the Certificate holder's instructions.

9.2.9 IKO Hyload Preformed Cavity Tray Units must be used at complex or awkward junctions of the cavity tray (for example, at corners or changes in level of the cavity tray).

9.2.10 Where used as a cavity tray, the DPC laps must be sealed.

9.2.11 Lap joints must be bonded by applying IKO Hyload DPC Jointing Tape between surfaces (having removed the silicone tapes immediately beforehand) and applying even pressure to the joint.

9.2.12 All surfaces to be jointed must be clean and dry. Release paper protecting the self-adhesive strips must not be removed until the joint is ready to be formed. The tape must not be left exposed overnight or during periods of low temperature.

9.2.13 Where the IKO Hyload Permabit Damp-proof Course System or Hyload Preformed Cavity Tray Units are required to be bonded to a brick, block, concrete substrate or timber frame, an initial bonding can be formed by self-adhesive tape bonded to the substrate. The substrate must be primed with IKOpro SA Primer. A permanent mechanical fixing must be installed using IKO Hyload DPC Fixing Strip. The Certificate holder can advise on suitable fixing, but such advice is outside the scope of this Certificate.

9.2.14 When using the DPC with boot lintels or similar constructions, it is recommended that the material is installed to follow the lintel profile, where appropriate.

9.2.15 When used with beam and block flooring, the DPC may be laid dry on a brick or block wall provided the following conditions are met:

- the minimum bearing of the beams recommended by the flooring system manufacturer is achieved
- the dead and applied loads upon the DPC via the beam do not exceed $2.5 \text{ N}\cdot\text{mm}^{-2}$
- the surface of the wall onto which the DPC and beam are to be installed is clean, smooth and free from projections or perforations. Failure to comply with this requirement could lead to perforation of the DPC. If the requirement cannot be met, the DPC must be laid in an even bed of mortar
- any loose aggregate is swept from the wall prior to the installation of the DPC and from the DPC prior to the installation of the beam.

9.2.16 Certain details are difficult to form with the DPC, particularly when bending the material through two angles at the same time. In such cases, care must be taken to achieve a satisfactory seal and, where necessary, IKO Hyload Preformed Cavity Tray Units for Walls are used. Joints must be formed on site using IKO Hyload DPC Jointing Tape.

9.2.17 The DPC is handled in the same manner as conventional flexible damp-proof courses and is cut with a sharp knife. It will remain sufficiently flexible for installation in low temperatures and will not become tacky in warm conditions.

9.2.18 As with most other DPC materials, damage can occur during the cleaning of mortar droppings from the DPC, unless care is taken. Recommendations to prevent damage are:

- the use of cavity battens to prevent excessive amounts of mortar reaching the DPC
- removal of mortar droppings before hardening
- that implements such as steel rods are not used for cleaning
- that DPCs are regularly inspected for damage as work proceeds.

9.3 Workmanship

9.3.1 Practicability of installation was assessed by the BBA and 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 a competent general builder, or a contractor, experienced with this type of system.

9.4 Maintenance and repair

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

9.4.2 Damaged areas of the system must be repaired prior to installation by cutting and /or replacing the damaged section, in accordance with section 9.2 of this Certificate.

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 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 IKO Hyload Permabit Damp-proof Course is delivered to site in rolls secured with a paper wrapper bearing the Certificate holder's name and the BBA logo incorporating the number of this Certificate. IKO Hyload Preformed Cavity Tray Units are delivered to site in cardboard boxes. To each box is affixed a label bearing a description of the contents 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 Rolls must be stored on end and under cover.

11.2.2 Contact with organic solvents must be avoided.

11.2.3 If IKO Hyload Permabit Damp-proof Course is stored at low temperatures, it must be left in a warm place before use to improve handling.

Supporting information in this Annex is relevant to the system 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 system components under the *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 product in accordance with Designated Standard EN 14909 : 2012.

CE marking

The Certificate holder has taken the responsibility of CE marking the DPC, in accordance with harmonised European Standard EN 14967 : 2012.

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 and BS EN ISO 14001 : 2015 by BSI (Certificates Q 05233 and FM 24709 respectively).

Bibliography

BRE Digest 380 *Damp-proof Courses*

BS 8000-0 : 2014 *Workmanship on construction sites. Introduction and general principles*

BS 8000-3 : 2020 *Workmanship on building sites — Code of practice for masonry*

BS 8215 : 1991 *Code of practice for design and installation of damp-proof courses in masonry construction*

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

BS EN 1996-1-1 : 2005 + A1 : 2012 *Eurocode 6 — Design of masonry structures – General rules for reinforced and unreinforced masonry structures*

NA to BS EN 1996-1-1 : 2005 + A1 : 2012 *UK National Annex to Eurocode 6 – Design of masonry structures – General rules for reinforced and unreinforced masonry structures*

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

NA to BS EN 1996-1-2 : 2005 *UK National Annex to 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*

NA to BS EN 1996-2 : 2006 *UK National Annex to Eurocode 6 – Design of masonry structures – Design considerations, selection of materials and execution of masonry*

BS EN 1996-3 : 2006 *Eurocode 6 – Design of masonry structures – Simplified calculation methods for unreinforced masonry structures*

NA to BS EN 1996-3 : 2006 *UK National Annex to Eurocode 6 – Design of masonry structures – Simplified calculation methods for unreinforced masonry structures*

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

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

EN 14909 : 2012. *Flexible sheets for waterproofing - Plastic and rubber damp proof courses - Definitions and characteristics*

EN 14967 : 2012 *Flexible sheets for waterproofing — Bitumen damp proof course — Definitions and characteristics*

PD 6697 : 2019 *Recommendations for the design of masonry structures to BS EN 1996-1-1 and BS EN 1996-2*

Conditions of Certificate

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.

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