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Agrément Certificate
01/3823
Product Sheet 3

SYSTEM PLATON

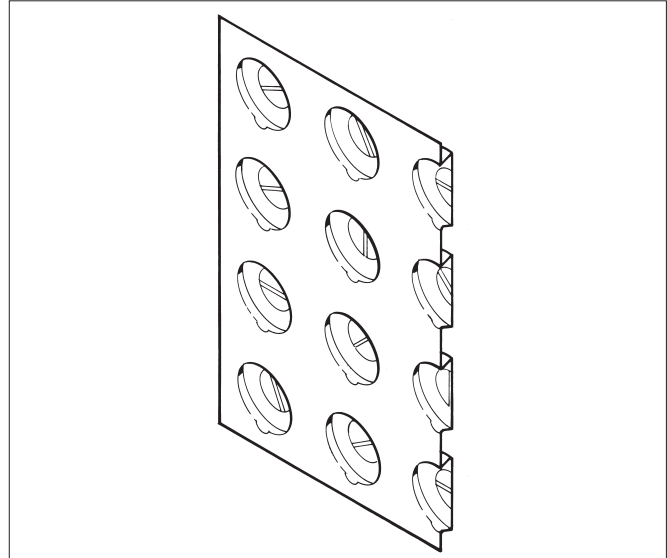
PLATON PLASTER BASE

PRODUCT SCOPE AND SUMMARY OF CERTIFICATE

This Certificate relates to Platon Plaster Base, a high density polyethylene (HDPE) membrane for damp-proofing walls and vaulted ceilings in new constructions or in existing buildings. It can be used above and below ground, over a contaminated or damp background to support a plaster or render coat or dry lining on plaster dabs.

AGRÉMENT 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

Resistance to water and water vapour — the membrane is water resistant and has a high resistance to water vapour transmission (see section 5).

Resistance to salt transfer — the membrane provides an effective barrier to the transmission of salts or other contaminants from the substrate (see section 7).

Resistance to impact — the membrane, plastered, rendered or drylined, has a satisfactory resistance to soft and hard body impacts (see section 8).

Durability — under normal conditions of use, the system will provide an effective barrier to the transmission of salts, liquid water and water vapour for the life of the structure in which it is incorporated (see section 11).

The BBA has awarded this Agrément Certificate to the company named above for the product described herein. The 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



Simon Wroe
Head of Approvals — Materials



Greg Cooper
Chief Executive

Date of First issue: 22 September 2010

Originally certificated on 9 October 2001

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.

Regulations

In the opinion of the BBA, Platon Plaster Base, if used in accordance with the provisions of this Certificate, will meet or contribute to meeting the relevant requirements of the following Building Regulations:



The Building Regulations 2000 (as amended) (England and Wales)

For new construction and a 'Material Change of Use' of an existing buildings, as defined in Regulation 5a

Requirement:	C2(a)(b)	Resistance to moisture
Comment:		The system adequately resists the passage of moisture. See section 5.1 of this Certificate.
Requirement:	Regulation 7	Materials and workmanship
Comment:		The system is acceptable. See section 11 and the <i>Installation</i> part of this Certificate.



The Building (Scotland) Regulations 2004 (as amended)

For new construction and a 'Conversion' of an existing building, as defined in Regulation 4

Regulation:	8(1)	Fitness and durability of materials and workmanship
Comment:		The system is acceptable. See section 11 and the <i>Installation</i> part of this Certificate.
Regulation:	9	Building standards – construction
Standard:	3.3	Flooding and ground water
Comment:		The system can contribute to minimising or eliminating the effects of flooding on the building fabric and/or the building element, with reference to clause 3.3.1 ⁽¹⁾⁽²⁾ . See section 5.1 of this Certificate.
Standard:	3.4	Moisture from the ground
Comment:		The system adequately resists the passage of moisture with reference to clauses 3.4.1 ⁽¹⁾⁽²⁾ , 3.4.2 ⁽¹⁾⁽²⁾ , 3.4.5 ⁽¹⁾⁽²⁾ , 3.4.6 ⁽¹⁾⁽²⁾ and 3.4.7 ⁽¹⁾⁽²⁾ . See section 5.1 of this Certificate.
Standard:	3.6(a)	Surface water drainage
Comment:		The system can contribute to satisfying this Standard, with reference to clause 3.6.3 ⁽¹⁾⁽²⁾ . See section 5.1 of this Certificate.
Standard:	3.10	Precipitation
Comment:		The system adequately resists the passage of moisture, with reference to clause 3.10.1 ⁽¹⁾⁽²⁾ . See section 5.1 of this Certificate.
Regulation:	12	Building standards – conversions
Comment:		All comments given for this system under Regulation 9, 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) 2000 (as amended)

For new construction and a 'Material Change of Use' of an existing building, as defined in Regulation A9

Regulation:	B2	Fitness of materials and workmanship
Comment:		The system is acceptable. See section 11 and the <i>Installation</i> part of this Certificate.
Regulation:	C4(a)(b)	Resistance to ground moisture and weather
Comment:		The system adequately resists the passage of moisture. See section 5.1 of this Certificate.

Construction (Design and Management) Regulations 2007

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

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

See section: 1 *Description* (1.2) of this Certificate.

Non-regulatory Information

NHBC Standards 2010

NHBC accepts the use of Platon Plaster Base when installed and used in accordance with this Certificate, in relation to *NHBC Standards*, Chapter 5.1 *Substructure and ground bearing floors* and 5.2 *Suspended ground floors*.

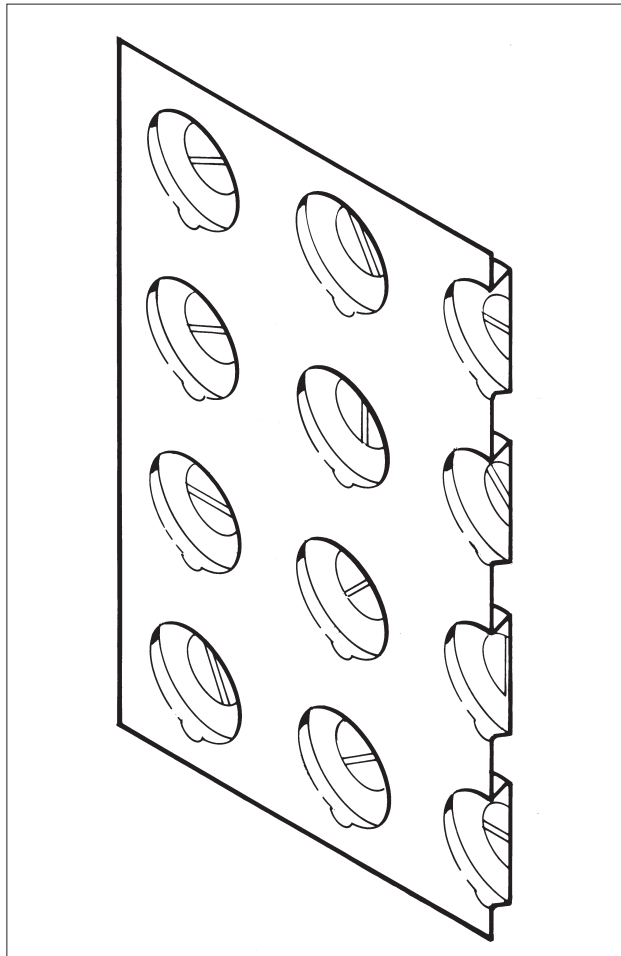
General

Platon Plaster Base is marketed in the UK by Triton Chemical Manufacturing Co Ltd, Triton House, Lydean Industrial Estate, 129 Felixstowe Road, Abbeywood, London SE2 9SG Tel: 020 8310 3929, Fax: 020 8312 0349, e-mail: info@triton-chemicals.com, website: www.triton-chemicals.com

1 Description

1.1 Platon Plaster Base is a clear, high-density polyethylene (HDPE) membrane, moulded to form undercut studs which act as a key to subsequently applied plaster or render (see Figure 1).

Figure 1 Platon Plaster Base



1.2 Platon Plaster Base is available in roll form, and has characteristics of:

thickness (mm)	0.5
stud height (mm)	5
weight per unit area ($\text{kg}\cdot\text{m}^{-2}$)	0.48
roll sizes (m)	2.0 x 20
weight of roll (kg)	19 approx
air gap volume ($\text{l}\cdot\text{m}^{-2}$)	4

1.3 The membranes are formed in a continuous process in which high-density polyethylene (HDPE) is extruded into sheets and the stud impression formed.

1.4 Quality control is exercised over raw materials, during the production process and on the final product.

1.5 Ancillary materials used with the membrane include:

Platon Plaster Plug — a plastic plug for fixing membrane to brick or stone. The plug has a pre-formed hole permitting timber fixings to be inserted without breaching the membrane (see Figure 2)

Platon Sealing Rope — butyl rubber beading for sealing joints in the membrane, sealing the membrane around pipes and openings and to form a gasket between the brick plug and membrane

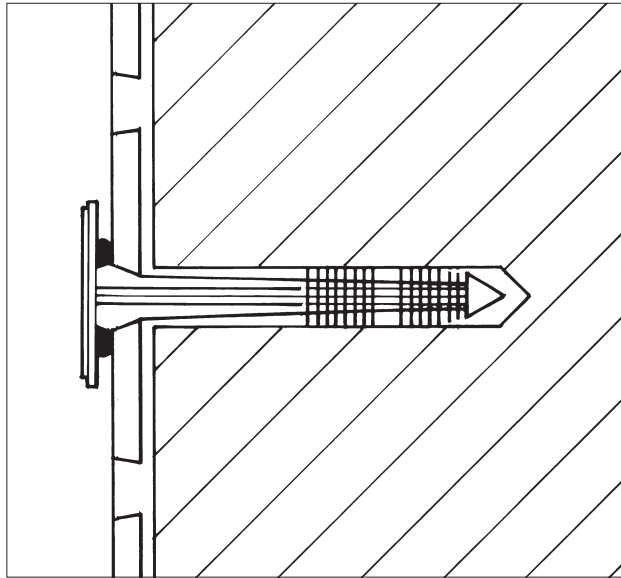
Platon Sealer — a butyl rubber sealant for sealing the membrane around pipes and openings and at joints

Platon Overtape — butyl rubber tape, at least 100 mm wide, backed with non-woven polypropylene for sealing joints in the membrane

Standard metal edge lathing

Triton Trimix 1 — a water- and salt-resistant additive for sand and cement renders.

Figure 2 Platon Plaster Plug



2 Delivery and site handling

2.1 The membranes are delivered to site in wrapped rolls bearing the product and manufacturer's name and the BBA logo bearing the number of this Certificate.

2.2 Rolls should be stored on end, under cover and protected from sharp objects, sunlight and high temperatures.

Assessment and Technical Investigations

The following is a summary of the assessment and technical investigations carried out on Platon Plaster Base.

Design Considerations

3 General

3.1 Platon Plaster Base is used as a damp-proof membrane on internal walls and vaulted ceilings, above and below ground, in new construction or in existing buildings over a contaminated or damp background. It can support plastering, rendering or a dry lining fixed by plaster dabs (where appropriate) in the following situations:

- damp walls in underground situations subject to high groundwater levels, and perennial moisture
- on vaulted ceilings of archways or cellars subject to water ingress
- in conjunction with a remedial dpc system where the walls have a high salt content and/or it is necessary to complete the installation immediately without allowing a period for initial drying
- over a wall which has a friable or painted surface, is contaminated with oil or mould, or has a high salt content
- as a waterproofing membrane in areas subject to vibration.

3.2 Depending on the application required and the site conditions, the membrane may be used as:

- a dry-lining for walls, vented into the room via aeration slots at the top and bottom of the wall
- a sealed system covering wall and ceiling with provision made for disposing of water build-up behind the membrane via a sump and pump.

3.3 The membrane has not been assessed for use in chemically contaminated areas, such as brownfield sites.

3.4 The membrane consists of 0.5 mm thick HDPE and, in the opinion of the BBA, meets the requirement for a radon barrier according to BRE Report (BR 211 : 1999) *Radon : guidance on protective measures for new dwellings*.

However, the effectiveness of the joint sealing system used with Platon Plaster Base has not been assessed against radon by the BBA and is outside the scope of this Certificate.

3.5 The system is satisfactory for use in Type C (drained protection) structural concrete constructions in accordance with BS 8102 : 1990, Clause 3.2.4.

4 Practicability of installation

The system should be installed by competent specialist contractors experienced with damp-proofing work.

5 Resistance to water and water vapour



5.1 The membrane is water resistant and has a high resistance to water vapour transmission. However, the product as installed is not resistant to hydrostatic pressure and consequently, the measures described in the *Installation* part of this Certificate must be followed to ensure that, where the surface is damp, there is a flow of air across it, or that the membrane acts as a drainage layer and that there is no excessive build up of water behind the system.

5.2 All joints and fixings must be sealed with Platon sealing products, and drainage channels and gullies, or sumps and pumps should be installed as necessary to disperse excess or standing water.

6 Risk of condensation

As with any room, there is a need to control the generation and dispersal of moisture in the internal environment and to select appropriate and robust designs to minimise the risk of both surface and interstitial condensation. The product has a very high resistance to vapour diffusion and this should be taken into account in any calculation of condensation risk.

7 Resistance to salt transfer

The system provides an effective barrier to the transmission of salts or other contaminants from the substrate.

8 Resistance to impact

The membrane, plastered, rendered or dry-lined, has a satisfactory resistance to soft and hard body impacts.

9 Wall-mounted fittings

Wall-mounted fittings (apart from lightweight items such as framed pictures) should be fixed (using recommended proprietary fixings) through the membrane and lining board, plaster or render to the loadbearing structure behind. Holes made in the membrane must be filled with a flexible sealant, such as Platon Sealer or Platon Sealing Rope or Tape before inserting the fixing.

10 Maintenance

10.1 As the membrane is covered by plaster, render or plasterboard and has suitable durability (see section 11), maintenance is not required.

10.2 Regular maintenance of all gullies, sumps and pumps must be conducted to ensure that a build-up of water does not occur behind the membrane.

11 Durability



Under normal conditions of use, the system will provide an effective barrier to the transmission of salts, liquid water and water vapour for the life of the structure in which it is incorporated.

Installation

12 Survey

12.1 Where the property is below ground, or where conditions are damp, a full survey is necessary by a specialist waterproofing surveyor to diagnose the cause and to establish if treatment is required.

12.2 If rising damp to above-ground elevations is found, a remedial treatment is conducted in accordance with the relevant Agrément Certificate, BS 6576 : 2005 and the Property Care Association *Code of Practice for Installation of Remedial Damp-proof Courses in Masonry Walls*.

12.3 Appropriate remedial measures are taken to rectify other causes of damp conditions or water ingress and to repair structural defects.

13 Surface preparation

13.1 Any unsound plaster or render should be removed to expose the substrate which is then cleaned with a stiff brush to remove any loose material, laitance, salt residue, mould or adhesive. If mould is present the substrate should be treated with a fungicidal wash. The Certificate holder can advise on suitable materials and procedures to be used.

13.2 Uneven substrates should be dubbed out with a cement-sand (1:4) render to achieve a flat finish, and allowed to set before fixing the membrane.

14 Procedure

General

14.1 Platon Plaster Base may be used in combination with any of the appropriate Platon membranes which are the subject of other Product Sheets of this Certificate.

14.2 The membrane should always be used with the lower sheet placed in front of the higher sheet with a minimum overlap of two studs. The lap is made secure by the use of Platon Plaster Plugs fixed as close as possible to the edge of the membrane, at 150 mm centres along the joint. The overlap is then wiped clean of dust and sealed with 100 mm wide Platon Overtape applying equal overlap areas to each sheet of membrane.

14.3 Fixings are made through the spacing between four studs (not through the studs) into holes drilled through the membrane into the substrate. Platon Plaster Plugs to which Platon Sealing Rope has been applied around the rim, are inserted into the holes and tapped flush with the membrane.

14.4 On difficult substrates the fact that the membrane is clear will allow the contractor to view the substrate through the membrane and choose the optimum site for each fixing.

14.5 Fixings are made in a diamond pattern at a minimum number of 13 per square metre, and a maximum spacing of 300 mm.

Ceilings

14.6 Ceilings to be covered must always have a fall, as per vaulted cellar constructions, to ensure water does not build up against the membrane or a joint. The vertical drop between the ends of two membrane sheets for horizontal overlaps should be a minimum of 100 mm.

14.7 Any sagging of the membrane between fixing points should not be great enough for ponding to occur.

14.8 At the end walls of vaulted constructions the membrane must be turned down onto the end wall by a minimum 300 mm (ie nine studs). The membrane is mitred as necessary to fit the curve of the ceiling, and the joint sealed with Platon Overtape. The wall membrane should be cut to fit the curve of the ceiling, fixed in front of the ceiling membrane, and the gap sealed with Platon Sealing Tape, Rope or Platon Sealer.

Walls

14.9 Installation of the membrane is commenced at the top of the construction. Joints are made by overlapping the membrane by a minimum of two studs.

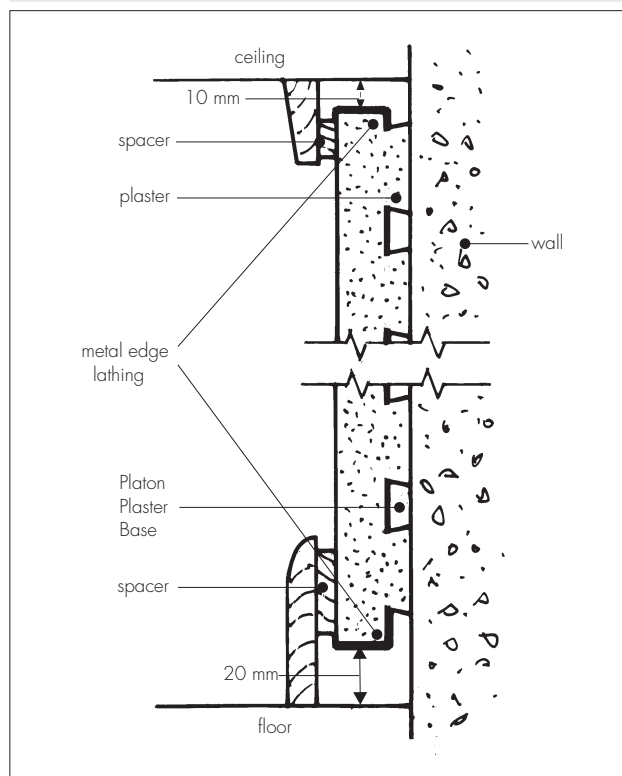
14.10 Power cables, points and light switches preferably should be remounted in front of the membrane.

14.11 The membrane is installed over windows and then cut away to expose them. For doors and other obstructions, the membrane is installed up to the perimeter. In both cases, the gaps are sealed with Platon Sealing Rope or Tape.

14.12 Power cables, points and light switches preferably should be remounted in front of the membrane.

14.13 For above-ground applications, where the system is not sealed, standard metal edge lathing is fixed at the top and bottom of the membrane to maintain a 10 mm gap at wall/ceiling and a 20 mm gap at wall/floor junctions. Spacers measuring 3 mm by 200 mm are fixed at 600 mm centres behind the skirting board and ceiling coving to ensure a ventilation gap (see Figure 3). Alternatively, a proprietary ventilated skirting board or ceiling coving may be used.

Figure 3 Wall detail with plaster lining



15 Plastering

15.1 Most common lightweight plasters, renovating plasters and one coat plasters can be applied to Platon Plaster Base using the procedures defined in BS EN 13914-2 : 2005 and/or the appropriate Agrément Certificate. When using sand/cement render, a mix of one part cement to six parts sand should be used, incorporating a plasticiser such as Triton Trimix 1 (Trimix 1 is added to the gauging water at the ratio of 1:24). Where appropriate seek a recommendation from the Certificate holder.

15.2 The plaster should be a minimum total depth of 15 mm.

16 Dry lining of walls

16.1 A gypsum-based drywall adhesive to BS EN 14496 : 2005 is mixed and applied to the membrane in accordance with BS 8212 : 1995. The total area of contact between the adhesive and board surface should not be less than 20% of the board area.

16.2 Gypsum plasterboard to BS EN 520 : 2004, or similar dry lining boards covered by a current Agrément Certificate, are pressed onto the plaster dabs and jointed in the usual manner. Temporary spacers approximately 20 mm to 25 mm high are positioned under the dry lining to support it during the curing period.

17 Finishing works

17.1 The plastered membrane can accept permanent decoration, such as vinyl papers or oil paint. Temporary permeable decoration (necessary when a remedial dpc installation is replastered conventionally) is not necessary.

17.2 Once the plastered, dry-lined or rendered surface has dried, the surface can be painted or wallpapered using traditional methods and materials.

Technical Investigations

18 Tests

Tests were carried out to determine:

- nail tear resistance
- thickness
- impact resistance of plastered, rendered and dry-lined membrane.

19 Investigations

19.1 The manufacturing process was examined, including the methods adopted for quality control, and details were obtained of the quality and composition of the materials used.

19.2 Trial installations were conducted to assess the practicability of installation of the system and the methods used for plastering, rendering and dry lining.

19.3 An assessment was made of the scope of use and durability of the system in relation to the generic properties of the membrane.

Bibliography

BS 5250 : 2002 *Code of practice for control of condensation in buildings*

BS 6576 : 2005 *Code of practice for diagnosis of rising damp in walls of buildings and installation of chemical damp-proof courses*

BS 8000-10 : 1995 *Workmanship on building sites — Code of practice for plastering and rendering*

BS 8102 : 2009 *Code of practice for protection of below ground structures against water from the ground*

BS 8212 : 1995 *Code of practice for dry lining and partitioning using gypsum plasterboard*

BS EN 520 : 2004 *Gypsum plasterboards — Definitions, requirements and test methods*

BS EN 13914-2 : 2005 *Design, preparation and application of external rendering and internal plastering — Design considerations and essential principles for internal plastering*

BS EN 14496 : 2005 *Gypsum based adhesives for thermal/acoustic insulation composite panels and plasterboards — Definitions, requirements and test methods*

Property Care Association COP09 *Code of Practice for Installation of Remedial Damp-proof Courses in Masonry Walls*

20 Conditions

20.1 This Certificate:

- relates only to the product/system that is named and described on the front page
- is granted only to the company, firm or person named on the front page — no other company, firm or person may hold or claim any entitlement to this Certificate
- 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 and documents referred to in this Certificate are those that the BBA deems to be relevant at the date of issue or re-issue of this Certificate and include any: Act of Parliament; Statutory Instrument; Directive; Regulation; British, European or International Standard; Code of Practice; manufacturers' instructions; or any other publication or document similar or related to the aforementioned.

20.3 This Certificate will remain valid for an unlimited period provided that the product/system and the manufacture and/or fabrication including all related and relevant 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 In granting this Certificate, the BBA is not responsible for:

- 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
- individual installations of the product/system, including the nature, design, methods and workmanship of or related to the installation
- the actual works in which the product/system is installed, used and maintained, including the nature, design, methods and workmanship of such works.

20.5 Any information relating to the manufacture, supply, installation, use and maintenance 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 and maintained. It does not purport in any way to restate the requirements of the Health & Safety at Work etc Act 1974, or of any other statutory, common law or other duty which may exist at the date 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. In granting this Certificate, the BBA does not accept responsibility to any person or body for any loss or damage, including personal injury, arising as a direct or indirect result of the manufacture, supply, installation, use and maintenance of this product/system.