Protan (UK) Limited
256 Europa Boulevard
Gemini Business Park
Warrington
Cheshire WA5 7TN

Tel: 01925 658001 Fax: 01925 899688
e-mail: technical@protan.co.uk
website: www.protan.co.uk

Agrément Certificate
00/3755
Product Sheet 1

PROTAN ROOFING MEBRANES

PROTAN G AND EX-A ROOFING MEMBRANES

This Agrément Certificate Product Sheet(1) relates to Protan G and EX-A Roofing Membranes, reinforced slip-resistant PVC roofing sheets for use as a loose-laid and ballasted waterproofing layer on exposed pitched or flat and zero fall roofs, or fully adhered on pitched or flat and zero fall roofs with limited access.

(1) Hereinafter referred to as 'Certificate'.

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

Weathertightness — the membranes and their joints will resist the passage of moisture to the interior of a building (see section 6).

Properties in relation to fire — the membranes, when used in a suitable specification, can enable a roof to be unrestricted under the national Building Regulations (see section 7).

Resistance to wind uplift — the membranes will enable a roof to be unrestricted under the national Building Regulations (see section 8).

Resistance to mechanical damage — the membranes will accept, without damage, the limited foot traffic and loads associated with installation and maintenance (see section 9).

Slip resistance — the membranes, when dry or wet, have satisfactory slip resistance to allow maintenance traffic (see section 10).

Durability — under normal service conditions, the products, will have a service life in excess of 35 years. A life in excess of 40 years can be achieved with mandatory maintenance (see section 12).

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

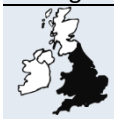
Date of Fifth issue: 29 November 2019

Originally certificated on 29 September 2000

Brian Moore
Director

Regulations

In the opinion of the BBA, Protan G and EX-A Roofing Membranes, 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:	**B4(2)**	**External fire spread**
Comment:		On suitable substructures, the membranes can enable a roof to be unrestricted under this Requirement. See section 7 of this Certificate.
Requirement:	**C2(b)**	**Resistance to moisture**
Comment:		The membranes, including joints, will enable a roof to satisfy this Requirement. See section 6.1 of this Certificate.
Regulation:	**7**	**Materials and workmanship (applicable to Wales only)**
Regulation:	**7(1)**	**Materials and workmanship (applicable to England only)**
Comment:		The membranes are acceptable. See section 12 and the *Installation* part of this Certificate.

The Building (Scotland) Regulations 2004 (as amended)

Regulation:	**8(1)(2)**	**Durability, workmanship and fitness of materials**
Comment:		The membranes satisfy the requirements of this Regulation. See sections 11.1 and 12 and the *Installation* part of this Certificate.
Regulation:	**9**	**Building standards applicable to construction**
Standard:	2.8	Spread from neighbouring buildings
Comment:		On suitable substructures, the membranes can be regarded as having low vulnerability under clause 2.8.1[(1)(2)] of this Standard. See section 7 of this Certificate.
Standard:	3.10	Precipitation
Comment:		The membranes will enable a roof to satisfy the requirements of this Standard, with reference to clauses 3.10.1[(1)(2)] and 3.10.7[(1)(2)]. See section 6.1 of this Certificate.
Standard:	7.1(a)	Statement of sustainability
Comment:		The membranes 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 made in relation to 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)(b)(i)**	**Fitness of materials and workmanship**
Comment:		The membranes are acceptable. See section 12 and the *Installation* part of this Certificate.

Regulation:	**28(b)**	**Resistance to moisture and weather**
Comment:		The membranes, including joints, will enable a roof to satisfy the requirements of this Regulation. See section 6.1 of this Certificate.
Regulation:	**36(b)**	**External fire spread**
Comment:		On suitable substructures, the use of the membranes can be unrestricted by the requirements of this Regulation. See section 7 of this 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.

See sections: 1 *Description* (1.2), 3 *Delivery and site handling* (3.3) and 10 *Slip resistance* of this Certificate.

Additional Information

NHBC Standards 2019

In the opinion of the BBA, Protan G and EX-A Roofing Membranes, if installed, used and maintained in accordance with Certificate, satisfy or contribute to satisfying the relevant requirements in relation to *NHBC Standards,* Chapter 7.1 *Flat roofs and balconies.*

CE marking

The Certificate holder has taken the responsibility of CE marking the products in accordance with harmonised European standard BS EN 13956 : 2012. An asterisk (*) appearing in this Certificate indicates that data shown are given in the manufacturer's Declaration of Performance.

Technical Specification

1 Description

1.1 Protan G and EX-A Roofing Membranes consist of a glass fibre-reinforced (G) or polyester-reinforced (EX-A) PVC roofing sheet, with a slip-resistant upper surface. Lap joints are hot air welded. The membranes covered by this Certificate are:

- Protan G — standard membrane requiring a separation/protection layer when used over polystyrene insulation boards or re-roofing applications. This membrane is also manufactured with added fungicide, for use in gravel-protected roof specifications
- Protan EX-A — standard membrane for fully adhered applications, laminated with a 180 $g \cdot m^{-2}$ polyester fleece backing.

1.2 The membranes are manufactured with the nominal characteristics shown in Table 1 and have the declared values given in Table 2.

Table 1 Nominal characteristics

Characteristic (unit)	Membrane	
	Protan G	Protan EX-A
Thickness (mm)	1.5	1.5
Roll length (m)	15	20
Roll width (m)	2	2
Mass per unit area ($kg \cdot m^{-2}$)	1.65	1.75
Roll weight (kg)	≥49.5	≥70
Mass of glass fibre reinforcement ($g \cdot m^{-2}$)	50	—(1)
Mass of polyester reinforcement ($g \cdot m^{-2}$)	—(1)	80
Mass of polyester backing fleece ($g \cdot m^{-2}$)	—(1)	180

(1) Not applicable.

Table 2 CE marking declared values

Parameter	Membrane	
	Protan G	Protan EX-A
Watertightness* (10 kPa)	pass	pass
Watertightness (150 kPa)	pass	NPD
Tensile strength* (N per 50 mm)	≥500	≥1100
Elongation* (%)	≥200	≥15
Resistance to impact* (mm)	≥600	≥700
Resistance to static load* (kg)	≥20	≥20
Tear resistance* (N per 50 mm)	≥110	≥300
Joint shear resistance* (N per 50 mm)	≥450	1000
Joint peel resistance* (N per 50 mm)	NPD	≥150
Foldability at low temperature* (°C)	≤–30	–30

1.3 The membranes are manufactured in standard colours(1) of:

lower side — dark grey
upper side — light grey, dark grey.

(1) Other colours are available to special order and are subject to minimum quantities.

1.4 Ancillary items used with the products include:

- Protan Bonding Adhesive — a solvent-based contact adhesive for use in detailing using Protan G membrane
- Protan ProBond Adhesive — a moisture-curing adhesive for use in fully adhered specifications using Protan EX-A membrane.

1.5 Ancillary items used with the products, but outside the scope of this Certificate, include:

- Protan PVC Laminated Metal — a 0.6 mm thick galvanized steel sheet, factory laminated with 1.2 mm thick Protan G membrane
- preformed internal and external corners
- pipe collars — preformed cloaks for use at penetrations
- rainwater outlets — stainless steel outlets with a Protan membrane flange
- Protan 2.4 mm GT Terrace Grade — a 2.4 mm thick PVC membrane for use on access walkways and lightly trafficked terraces
- Protan Progrip Walkway
- Protan Pavepad — bearing pads for concrete slabs
- polypropylene geotextiles — a range of 140 to 800 $g \cdot m^{-2}$ non-woven mats, for use as protection layers over existing bitumen roofing or uneven substrates
- Protan Constant Force Post — used as a part of a Mansafe System

- Protan Lightning Clips — protection cable anchor clips
- Protan Vapour Control Layers.

2 Manufacture

2.1 Protan G membrane is manufactured by coating a glass fibre base reinforcement on both sides with a plastisol coating, and fusing into one homogeneous sheet. Protan EX-A membrane is manufactured by coating one side of a lamination of a polyester reinforcement and calendered PVC with a plastisol coating, and fusing into one homogeneous sheet. The coating can be applied in several layers to achieve the required membrane thickness, and the sheet is then passed through a gelation oven.

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 Protan A/S has been assessed and registered as meeting the requirements of BS EN ISO 9001 : 2015 by Det Norske Veritas (Certificate OSL-AQ-6343).

2.4 The products are manufactured in Norway by Protan A/S and marketed in the UK by the Certificate holder.

3 Delivery and site handling

3.1 The membranes are delivered to site in rolls on pallets covered with polythene wrappings bearing the product name, batch number and the BBA logo incorporating the number of this Certificate.

3.2 Rolls should be stored on a clean, level, dry surface and kept under cover. The rolls should only be unwrapped from packaging at the time of installation, and unused membrane should be returned to its packaging until required.

3.3 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 Protan G and EX-A Roofing Membranes.

Design Considerations

4 General

4.1 Protan G and EX-A Roofing Membranes are satisfactory for use as roof waterproofing membranes in the following situations:

- Protan G — for use in loose-laid and ballasted waterproofing on flat and zero fall roofs
- Protan EX-A — for use in a fully adhered system on exposed pitched or flat and zero fall roofs with limited access.

4.2 Imposed loads, dead loading and wind load specifications are calculated in accordance with BS EN 1991-1-1 : 2002, BS EN 1991-1-3 : 2003 and BS EN 1991-1-4 : 2005, and their UK National Annexes.

4.3 Limited access roofs are defined for the purpose of this Certificate as those subjected only to pedestrian traffic for maintenance of the roof covering, cleaning of gutters, etc. Where traffic in excess of this is envisaged, a walkway must be provided, using concrete slabs supported on bearing pads, or Protan 2.4 mm GT Terrace Grade.

4.4 Flat roofs are defined for the purpose of this Certificate as those having a minimum finished fall of 1:80.

4.5 Zero fall roofs are defined for the purpose of this Certificate as those having a finished fall which can vary between 0 and 1:80. Reference should also be made to the appropriate clauses in Liquid Roofing and Waterproofing Association (LRWA) *Note 7 – Specifier Guidance for Flat Roof Falls*.

4.6 Pitched roofs are defined for the purpose of this Certificate as those having falls in excess of 1:6. For design purposes twice the minimum finished fall should be assumed, unless a detailed analysis of the roof is available, including overall and local deflection, direction of falls, etc.

4.7 Decks to which the products are to be applied must comply with the relevant requirements of BS 8217 : 2005 and BS 6229 : 2018, where appropriate *NHBC Standards* 2019, Chapter 7.1, the Certificate holder's instructions and this Certificate.

4.8 Insulation materials used in conjunction with the products must be approved by the Certificate holder and be either:

- as described in the relevant clauses of BS 8217 : 2005, or
- the subject of a current BBA Certificate and used in accordance with, and within the scope of, that Certificate.

4.9 Contact with certain bituminous, coal tar and oil-based products must be avoided as the membranes are not compatible with lower grades of bitumen. If contact with such products is likely, a separating layer should be interposed before installing the waterproofing sheet. Direct contact between the membranes and polystyrene insulation boards should also be avoided. Where doubt arises, the advice of the Certificate holder should be sought.

5 Practicability of installation

The Certificate holder operates an Approved Contractors Scheme for the products under which contractors are trained, registered and regularly reviewed by the Certificate holder to demonstrate that they are competent to carry out installation in accordance with this Certificate. Details of Approved Contractors are available from the Certificate holder. Approved Contractors are responsible for each installation of the products they undertake.

6 Weathertightness

6.1 The membranes, including joints, when completely sealed and consolidated, will adequately resist the passage of moisture to the inside of the building, enabling the roof to comply with the national Building Regulations.

6.2 The membranes are impervious to water and, when used as described in this Certificate, will give a weathertight roof covering capable of accepting minor structural movement without damage.

7 Properties in relation to fire

7.1 When used in protected specifications, including an inorganic covering listed in the Annex of Commission Decision 2000/553/EC, the products can be considered unrestricted under the national Building Regulations.

7.2 In the opinion of the BBA, a system comprising an 18 mm thick orientated strand board (OSB) deck and a layer of Protan G membrane fully adhered using a butanone adhesive will also be unrestricted(1) by the national Building Regulations.

(1) Test report reference TE200708, conducted by LPC Laboratories. Report available from the Certificate holder.

7.3 When tested to DD CEN/TS 1187 : 2012[1], a system comprising an 18 mm plywood deck, a polyethylene vapour control layer, 140 mm tissue-faced polyisocyanurate insulation and one layer of Protan EX-A 1.5 membrane, fully adhered to the insulation using Protan Pro-Bond Adhesive, achieved a B_{ROOF} (t4) classification under BS EN 13501-5 : 2005[2].

(1) Test report reference 333408, conducted by Exova Warringtonfire. Report available from the Certificate holder.
(2) Classification report reference 333407 conducted by Exova Warringtonfire. Report available from the Certificate holder.

7.4 The designation of other specifications (eg when used on combustible substrates) should be confirmed by reference to the documents supporting the national Building Regulations.

8 Resistance to wind uplift

8.1 When used in a fully adhered specification, the adhesion of the membranes will be limited by the cohesive strength of the substrate. On substrates with high cohesive strength, the adhesion of the membranes is sufficient to resist the effect of wind suction, thermal cycling or minor structural movements occurring in practice.

8.2 The precise ballast requirements for loose-laid systems should be calculated in accordance with the relevant parts of BS EN 1991-1-4 : 2005 and its UK National Annex, but must not be below a minimum thickness of 50 mm. In areas of high wind exposure the gravel may be bonded at the edges for a distance of one metre. Alternatively, concrete slabs on suitable supports can be used.

8.3 The ballast used must not be of types that will be removed or become delocalised owing to wind scour experienced on the roof.

9 Resistance to mechanical damage

The membranes can withstand the limited foot traffic and light concentrated loads associated with installation and maintenance. Reasonable care should be taken to avoid puncture by sharp objects or concentrated loads. Where regular traffic is envisaged, eg for maintenance of lift equipment, a walkway must be provided, for example using concrete slabs on bearing pads. When paviours are used, a protective sheet must be laid over the membrane.

10 Slip resistance

The membranes have a textured finish to aid slip resistance for foot traffic. However, care should be taken when walking across the roof if surface water is present.

11 Maintenance

11.1 The membranes should be the subject of biannual inspections and maintenance in accordance with BS 6229 : 2018, Chapter 7, to ensure continued performance.

11.2 A planned maintenance cycle, including inspections by the Certificate holder (or appointed representative of the Certificate holder) should be introduced if an extended service life is required. The Certificate holder can advise on methods of extending the service life. This may include the use of thicker membranes, specific maintenance requirements and/or localised replacement or repair.

11.3 Where damage has occurred, it should be repaired in accordance with section 18 and the Certificate holder's instructions.

12 Durability

The products, used in the context of this Certificate, will have a service life in excess of 35 years. A life in excess of 40 years can be achieved with mandatory maintenance, as described in section 11.

13 Reuse and recyclability

The products include PVC, which can be recycled.

Installation

14 General

14.1 Installation of Protan G and EX-A Roofing Membranes must be in strict accordance with the manufacturer's laying instructions and must be carried out only by Protan Partner Contractors using trained labour, records for whom are kept on the Certificate holder's database.

14.2 For all warm roof installations, a vapour control layer must be used directly over the deck. When internal temperatures and humidity conditions exceed 22°C and 50% relative humidity, special precautions should be taken and the Certificate holder must be consulted.

14.3 Insulation boards must be fixed to the substructure in such a way as not to impair the performance of the waterproofing membrane. The insulation manufacturer should be consulted for further advice.

14.4 Deck surfaces must be clean, dry, and free from sharp projections, such as nail heads or concrete nibs. When necessary, a separating or levelling layer may be interposed between the substrate and the membrane.

14.5 The membranes must not be laid in damp weather. When installing below 5°C, precautions should be taken against the formation of condensation.

15 Procedures

Fully adhered system

15.1 The membrane is unrolled, without folds or ripples, over the substrate, allowing for a 60 mm overlap for Protan EX-A membrane between sheets. The sheet is folded back by approximately half its length to expose the underside.

Protan EX-A membrane

15.2 Protan ProBond Adhesive is applied evenly to the substrate ensuring that it is not excessively thick and that 100% coverage is achieved.

15.3 The membrane is rolled out into the wet adhesive and pressed firmly using a suitable implement (eg a heavy roller).

15.4 This procedure is repeated for the unbonded section of the sheet.

15.5 The membrane is mechanically fixed at the perimeter and is then lap-jointed.

Protan G membrane – for detailing only

15.6 Protan Bonding Adhesive is applied evenly to the membrane and the substrate, ensuring that it is not excessively thick.

15.7 When the adhesive has dried sufficiently to allow the surface to be touched with a finger without sticking or stringing, the two coated surfaces are brought together and brushed to ensure bonding.

15.8 This procedure is repeated for the unbonded section of the sheet.

15.9 The membrane is mechanically fixed at the perimeter and is then lap jointed.

Loose-laid and ballasted system

Protan G membrane

15.10 Where possible, the loose-laid membrane should be factory fabricated. Horizontal laps must be a minimum of 100 mm. The roofing must be raised at least 150 mm at all flashings.

15.11 The membrane is mechanically fixed at perimeters, the laps are welded together and the detail work is carried out. The membrane should terminate at a minimum of 150 mm above finished roof level.

15.12 The membrane should be covered with protective sheet prior to the application of at least 50 mm of washed, well-rounded gravel. In areas of high wind exposure, a heavier gravel may be used and/or the gravel may be bonded at the edges for a distance of one metre, using Protan Bonding Adhesive. Alternatively, concrete slabs on suitable supports can be used.

15.13 When using a loose-laid application, normal account must be taken in the design of the deck of the extra dead loading owing to the weight of the aggregate and/or paving.

16 Lap welding procedures

16.1 Hot-air welding is carried out by hand or machine using equipment approved by the Certificate holder. Lap widths should be in accordance with the manufacturer's instructions.

16.2 When welding using a machine, test welds should be carried out to ensure the optimum setting for temperature, speed and pressure prior to the start of work. Peel tests should then be performed for every 200 linear metres of welding.

16.3 When hand welding, a continuous pre-weld should be made at the back edge of the overlap prior to full welding. The weld is then completed giving a finished seam width of 20 to 40 mm.

16.4 In all cases, an uninterrupted extrusion of molten material should be visible along the seam.

16.5 On completion of the weld, the seam should be tested for total consolidation using a seam probe.

17 Details

The Certificate holder supplies a range of components for the treatment of details such as flashings and penetrations.

18 Repair

In the event of damage, repair must be carried out in accordance with the Certificate holder's instructions. For Protan EX-A membrane repairs, a welding patch of Protan SE is applied, and for Protan G membranes, a patch of Protan G is applied. The joint should be cleaned back to unweathered material and hot-air welded to ensure a lap of at least 50 mm beyond the defect.

Technical Investigations

19 Tests

19.1 Tests were carried out and the results assessed to determine:

- tensile strength
- elongation at break
- tear strength
- water vapour permeability
- water vapour resistance
- low-temperature flexibility
- static indentation

- dynamic indentation
- peel strength
- coefficient of friction.

19.2 The following tests were carried out on a sample taken from an existing exposed roof installation:

- low temperature flexibility (aged and control samples)
- resistance to impact (aged and control samples)
- thickness.

20 Investigations

20.1 Existing data on the fire performance of the products were evaluated.

20.2 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.

20.3 Test data on Protan SE3 (which uses the same PVC compound) for heat ageing, natural exposure and effectiveness of welding, were assessed.

20.4 Test data on samples taken by SINTEF Byggforsk during 2003 from an exposed site installed during 1977/78 were assessed against the product as new.

20.5 An assessment of durability was carried out on exposed site installations.

Bibliography

BS 6229 : 2018 *Flat roofs with continuously supported flexible waterproof coverings coverings — Code of practice*

BS 8217 : 2005 *Reinforced bitumen membranes for roofing — Code of practice*

BS EN 1991-1-1 : 2002 *Eurocode 1: Actions 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: Actions on structures — General actions — Densities, self-weight, imposed loads for buildings*
BS EN 1991-1-3 : 2003 + A1 : 2015 *Eurocode 1: Actions on structures — General actions — Snow loads*
NA + A2 : 18 to BS EN 1991-1-3 : 2003 + A1 : 2015 UK National Annex to Eurocode 1: Actions on structures — General actions — Snow loads
BS EN 1991-1-4 : 2005 + A1 : 2010 *Eurocode 1: Actions on structures — General actions*
NA to BS EN 1991-1-4 : 2005 + A1 : 2010 UK National Annex to Eurocode 1: Actions on structures — General actions

BS EN 13501-5 : 2005 + A1 : 2009 *Fire classification of construction products and building elements — Classification using data from external fire exposure to roofs tests*

BS EN 13956 : 2012 *Flexible sheets for waterproofing — Plastic and rubber sheets for roof waterproofing — Definitions and characteristics*

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

DD CEN/TS 1187 : 2012 *Test methods for external fire exposure to roofs*

21 Conditions

21.1 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.

21.2 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.

21.3 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.

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

21.5 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.

21.6 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.

British Board of Agrément
Bucknalls Lane
Watford
Herts WD25 9BA

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