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Agrément Certificate
20/5786
Product Sheet 1

ARBOFLEX PU LIQUID POLYURETHANE MEMBRANE

ARBOFLEX PU LIQUID WATERPROOFING SYSTEM

This Agrément Certificate Product Sheet(1) relates to the ARBOFLEX PU Liquid Waterproofing System, a single component, cold liquid-applied polyurethane roof waterproofing membrane for use on exposed warm/cold flat and pitched roofs, and protected warm/cold zero fall, flat and pitched roofs, green roofs and roof gardens with limited access on new or existing roofs.

(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 system will resist the passage of moisture into the interior of a building (see section 6).

Properties in relation to fire — the system can enable a roof to be unrestricted under the national Building Regulations (see section 7).

Resistance to wind uplift — the system will resist the effects of any likely wind suction acting on the roof (see section 8).

Resistance to mechanical damage — the system will accept the limited foot traffic and loads associated with installation and maintenance (see section 10).

Resistance to root penetration — the system will resist the penetration by plant roots (see section 11).

Durability — under normal service conditions, the system will provide a durable roof waterproofing with a service life of at least 25 years (see section 13).

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 First issue: 10 August 2020

Hardy Giesler
Chief Executive Officer

Regulations

In the opinion of the BBA, the ARBOFLEX PU Liquid Waterproofing 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 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(1)**	**External fire spread**
Comment		The system, in some circumstances, is restricted by this Requirement. See section 7.4 of this Certificate.
Requirement:	**B4(2)**	**External fire spread**
Comment:		The system can enable a roof to be unrestricted under this Requirement. See sections 7.1 to 7.3 of this Certificate.
Requirement:	**C2(b)**	**Resistance to moisture**
Comment:		The system will enable a roof to satisfy this Requirement. See section 6.1 of this Certificate.
Regulation:	**7(1)**	**Materials and workmanship**
Comment:		The system is acceptable. See section 13 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 use of the system satisfies the requirements of this Regulation. See sections 12.1 and 13 and the *Installation* part of this Certificate.
Regulation:	**9**	**Building standards applicable to construction**
Standard:	2.8	Spread from neighbouring buildings
Comment:		The system, when applied to a non-combustible substrate, can be regarded as having low vulnerability under clause 2.8.1[(1)(2)] of this Standard. See sections 7.1 to 7.3 of this Certificate.
Standard:	3.10	Precipitation
Comment:		The use of the system 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(1)	Statement of sustainability
Comment:		The system 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:		Comments in relation to 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(a)(i)**	**Fitness of materials and workmanship**
Comment:		The system is acceptable. See section 13 and the *Installation* part of this Certificate.
Regulation:	**28(b)**	**Resistance to moisture and weather**
Comment:		The use of the system 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:		The system can enable a roof to be unrestricted under the requirements of this Regulation. See sections 7.1 to 7.3 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: 3 *Delivery and site handling* and 9 *Slip resistance* of this Certificate.

Additional Information

NHBC Standards 2020

In the opinion of the BBA, the ARBOFLEX PU Liquid Waterproofing 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 7.1 *Flat roof and balconies.* The NHBC Standards do not cover the use of the system in the refurbishment of existing roofs.

Technical Specification

1 Description

1.1 The ARBOFLEX PU Liquid Waterproofing System consists of:

- ARBOFLEX PU PRIMER PUP — a two component, polyurethane-based primer for use over concrete substrates
- ARBOFLEX PU PRIMER WBEP — a two-component, epoxy water-based primer for use over metal and polyurethane (PU) insulation substrates
- ARBOFLEX PU — a one-component waterproofing based on polyurethane resin
- ARBOFLEX PU UV PROTECT — a two-component polyurethane resin UV-protection finishing layer
- ARBOFLEX PU SLIP RESIST — plastic beads mixed in to ARBOFLEX PU UV PROTECT to provide a rough surface.

1.2 The waterproofing components and primers have the nominal characteristics given in Tables 1 and 2 respectively.

Table 1 Nominal characteristics of waterproofing components

Characteristic (unit)	Component	
	ARBOFLEX PU	ARBOFLEX PU UV PROTECT
Colour	grey, red tile, white	Component A: grey, black, red tile, white Component B: orange
Percentage solids (%)	90	60
Viscosity at 23°C (cps)	2.0–8.0	Component A: 600 ± 10 Component B: 80 ± 100
Specific gravity ($g \cdot cm^{-3}$)	1.30–1.40	1.30

Table 2 Nominal characteristics of primers

Characteristic (unit)	Component	
	ARBOFLEX PU PRIMER PUP	ARBOFLEX PU PRIMER WBEP
Colour	Component A: brown Component B: yellow	Component A: orange Component B: blue
Percentage solids (%)	Component A: 0 Component B: 0	Component A: 60 Component B: 75
Viscosity at 23°C (mPa·s)	Component A: 450 Component B: 900	Component A: 600 ± 50 Component B: 80 ± 50
Specific gravity ($g \cdot cm^{-3}$)	1.11	1.00

2 Manufacture

2.1 The liquid components of the system are manufactured by a batch-blending process.

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.

3 Delivery and site handling

3.1 The liquid components are delivered to site in packaging bearing the product name, company name, batch number, health and safety information and weight of contents in kilograms. The packaging details for the liquid components are given in Table 3.

Table 3 Liquid component packaging and size

Component	Packaging	Package weights (kg)
ARBOFLEX PU PRIMER PUP	Clamp top tins	5
ARBOFLEX PU PRIMER WBEP	Clamp top tins	Component A: 15 Component B: 5
ARBOFLEX PU	Clamp top tins	6, 25
ARBOFLEX PU UV PROTECT	Clamp top tins	Component A: 4.3, 17.20 Component B: 0.7, 2.80

3.2 The system components must be stored in a dry, well-ventilated area, under cover, within the temperature range recommended by the Certificate holder and away from heat sources.

3.3 The Certificate holder has taken the responsibility of classifying and labelling the system components under the *CLP Regulation (RC) 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 the ARBOFLEX PU Liquid Waterproofing System.

4 General

4.1 The ARBOFLEX PU Liquid Waterproofing System is satisfactory for use as a waterproofing layer on new and existing pitched and flat roofs with pedestrian and limited access, including green roofs and roof gardens.

4.2 The system is for use on concrete, steel and polyurethane insulation substrates. When used over insulation the system is only suitable for non-accessible areas.

4.3 The system is also satisfactory for use on protected zero fall, green roof, roof garden, warm and cold roofs specifications with limited access on concrete substrates.

4.4 The following terms are defined for the purpose of this Certificate as:

- roof garden (intensive) — a roof with a substantial layer of growing medium with planting that can include shrubs and trees, and generally accessible to pedestrians
- green roof (extensive) — a roof with a shallow layer of growing medium planted with low-maintenance plants such as mosses, sedums, grasses and some wildflower species.

4.5 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, special precautions, such as additional protection to the membrane, must be taken. Pedestrian access roofs are defined for the purposes of this Certificate as those not subject to vehicular traffic.

4.6 Flat roofs are defined for the purpose of this Certificate as those having a minimum finished fall of 1:80(1). 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 Pitched roofs are defined for the purpose of this Certificate as those having a fall greater than 1:6.

4.8 Zero fall roofs are defined for the purpose of this Certificate as those having a finished fall of between 0 and 1:80(1) degrees. Recommendations for the design of roof falls are available in the Liquid Roofing and Waterproofing Association (LRWA) Note 7 — *Specifier Guidance for Flat Roof Falls*.

(1) *NHBC Standards* 2020 require a minimum fall of 1:60 for green roofs and roof gardens.

4.9 On zero fall roofs it is particularly important to identify the correct drainage points to ensure that the drainage provided is effective.

4.10 Concrete decks to which the system is to be applied must comply with the relevant requirements of BS 6229 : 2018, BS 8217 : 2005 Sections 5.1.2 and 6.7, and, where appropriate, *NHBC Standards* 2020, Chapter 7.1. Attention is drawn to the requirements of these Standards to ensure that reinforced concrete roof slabs are finished to an acceptable standard, allow free drainage of water and are allowed to dry prior to the installation of the waterproofing. When these conditions are not satisfied, appropriate remedial treatment is essential.

4.11 Structural decks to which the system is to be applied must be suitable to transmit the dead and imposed loads experienced in service. Allowance needs to be made for loading deflections to ensure that the free drainage of water is maintained.

4.12 Imposed loads, dead loading and wind load specifications should be calculated by a suitably experienced and competent individual 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.

4.13 Recommendations for the design of green roofs and roof garden specifications are available within the latest edition of *The GRO Green Roof Code – Green Roof Code of Best Practice for the UK.*

4.14 The drainage system for both green roofs and roof gardens must be correctly designed, and provision made for access for maintenance purposes. Dead loads for green roofs and roof gardens can increase if the drains become partially or completely blocked causing waterlogging of the drainage layer.

4.15 Insulation materials to be used in conjunction with the system must be in accordance with the Certificate holder's instructions 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.

5 Practicability of installation

Installation of the system must be carried out only by specialist roofing contractors trained and approved by the Certificate holder.

6 Weathertightness

6.1 The system will adequately resist the passage of moisture into the interior of a building and enable a roof to comply with the requirements of the national Building Regulations.

6.2 The system is impervious to water and, when used as described will achieve a weathertight roof capable of accepting minor structural movement without damage.

7 Properties in relation to fire

7.1 When tested to DD CEN/TS 1187 : 2012, Test 4, a system comprising 12 mm calcium silicate board, a coat of ARBOFLEX PU and an overcoat with ARBOFLEX PU UV PROTECT, achieved a classification of B_{ROOF}(t4) under BS EN 13501-5 : 2005.

7.2 In the opinion of the BBA, a roof incorporating the system will be unrestricted under the national Building Regulations in the following circumstances:

- when protected by an inorganic covering (eg gravel or paving slabs) listed in the Annex of Commission Decision 2000/553/EC
- a roof garden covered with a drainage layer of gravel 100 mm thick and a soil layer 300 mm thick
- irrigated green roofs or roof gardens.

7.3 The designation of other specifications should be confirmed by reference to the requirements of the documents supporting the national Building Regulations.

7.4 The system, when used in pitches of greater that 70°, excluding upstands, should not be used on buildings in England and Wales that have a storey at least 18 m above ground level and 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, sheltered housing, hospitals or dormitories in boarding schools.

7.5 If allowed to dry, the plants used may allow flame spread across the roof. This should be taken into consideration when selecting suitable plants for the roof. Appropriate planting irrigation and/or protection should be applied to ensure that the overall fire-rating of the roof is not compromised.

8 Resistance to wind uplift

8.1 The adhesion of the system to concrete, steel and polyurethane insulation is sufficient to resist the effects of any wind suction, elevated temperatures, thermal shock or minor movement likely to occur in practice.

8.2 Where the membrane is installed over insulation boards, the resistance to wind uplift will be dependent on the cohesive strength of the insulation and the method the boards are secured to the roof deck. This must be taken into account when selecting a suitable insulation material.

8.3 The soil used in roof gardens must not be of a type that will be removed or become delocalised due to wind scour.

8.4 It should be recognised that the type of plants used in roof gardens could significantly affect the wind loads experienced in service.

9 Slip resistance

The system, when incorporating ARBOFLEX PU SLIP RESIST, has adequate slip resistance in wet conditions and may be used in pedestrian access areas. The system has an R_d value of 50 when tested to DD ENV 12633 : 2003.

10 Resistance to mechanical damage

10.1 The system, when applied on concrete or steel substrates, can accept without damage the limited foot traffic and light concentrated loads associated with installation and maintenance and pedestrian traffic. Reasonable care should be taken to avoid puncture by sharp objects or concentrated loads.

10.2 When applied over polyurethane insulation, the system must only be accessed when a suitable protection, such as pavers, is used.

10.3 Results of testing for static and dynamic indentation are given in Table 4.

Table 4 Static and dynamic indentation

Test	Result	Method
Dynamic indentation		
Hard substrate[1]		
unaged		
23°C	I_4	
-20°C	I_4	
UV aged[3]	I_4	EOTA TR-006
Heat aged[2]	I_4	
Soft substrate[4]		
unaged		
23°C	I_2	
-20°C	I_2	
Static indentation		
hard substrate[1]		
unaged		
23°C	L_4	
60°C	L_4	
80°C	L_4	
water exposure[5]	L_4	EOTA TR-007
water exposure[6]	L_4	
soft substrate[4]		
unaged		
23°C	L_1	
60°C	L_1	

(1) Steel substrate.
(2) Heat aged at 80°C for 200 days and tested at -20°C to EOTA TR 011.
(3) UV aged for 5000 hours for an exposure of 1000 $MJ \cdot m^{-2}$ tested at -10°C W3 to EOTA TR 010.
(4) Polyurethane (PU) substrate.
(5) Water exposure at 60°C for 60 days then tested at 60°C to EOTA TR 012.
(6) Water exposure at 60°C for 180 days then tested at 60°C to EOTA TR 012.

10.4 When applied over polyurethane insulation, the system must only be accessed when a suitable protection, such as pavers, is used.

11 Resistance to root penetration

The system will resist penetration by plant roots and can be used as a waterproofing system in green roof and roof garden specifications.

12 Maintenance

12.1 The system must be the subject of six monthly inspections and maintenance in accordance with BS 6229 : 2018, Chapter 7, to ensure continued performance.

12.2 Green roofs and roof gardens must be the subject of regular inspections, particularly in autumn after leaf fall and in spring, to ensure unwanted vegetation and other debris are cleared from the roof and drainage outlets (see section 4.14 of this Certificate). Guidance is available within the latest edition of *The GRO Green Roof Code - Green Roof Code of Best Practice for the UK*.

12.3 Where damage has occurred it should be repaired in accordance with section 17 and the Certificate holder's instructions.

13 Durability

Under normal service conditions, the system will provide a durable roof waterproofing with a service life of at least 25 years.

Installation

14 General

14.1 The ARBOFLEX PU Liquid Waterproofing System must be installed in accordance with the relevant clauses of BS 8000-0 : 2014, BS 8000-4 : 1989, BS 6229 : 2018, Liquid Roofing and Waterproofing Association (LRWA) Note 7 – *Specifier Guidance for Flat Roof Falls*, the Certificate holder's instructions and this Certificate.

14.2 The system must be applied when the air and substrate temperatures are greater than 5°C. Special precautions may be necessary when temperatures exceed 30°C, as shown in the Certificate holder's Technical Data sheets.

14.3 Substrates to which the system is to be applied must be sound, clean, frost free, dry, free from fatty/oily residues, contaminants and from sharp projections such as nail heads and concrete nibs. Concrete surfaces must have a moisture content of less than 5%. The Certificate holder's advice must be sought for the suitability of the substrate to receive the system and for suitable cleaning procedures, including the use of a proprietary surface cleaner/HSE approved fungicidal wash, where required.

15 Site and surface preparation

15.1 Substrates to which the system is to be applied must be properly prepared in accordance with the Certificate holder's instructions.

15.2 Adhesion to substrates will depend on the condition and cleanness of the substrate. Substrates must be visibly dry, sound and free from loose materials or contamination (eg moss or algae).

15.3 Substrates are high-pressure washed and rinsed to remove loose or flaking materials, but must be visibly dry before application of the system. Areas contaminated with moss and lichen are treated with a proprietary HSE approved biocidal wash and allowed to dry.

15.4 Deck surfaces must be free from sharp projections, such as protruding fixing bolts and concrete nibs.

15.5 Gutters and outlets must be checked to ensure that they are, and remain, clear of all debris.

15.6 All points of potential weakness such as splits, cracks, joints and crazed surfaces must be reinforced in accordance with the Certificate holder's instructions prior to application of the system.

15.7 Substrates are primed with the appropriate primer at the recommended coverage rate (see section 16.2) in accordance with the Certificate holder's instructions.

16 Application

16.1 ARBOFLEX PU PRIMER PUP components (Parts A and B) must be thoroughly mixed for two minutes using a rod stirrer.

16.2 The mixed primer is applied by to the substrate. Application rate is typically 0.2 $kg \cdot m^{-2}$. The primer must be completely dry before the waterproofing layer is applied.

16.3 ARBOFLEX PU is applied to the roof at a coverage rate of 1.8 $kg \cdot m^{-2}$, using a roller.

16.4 On completion, the surface must be inspected for any pinholes and a second layer applied if required.

16.5 ARBOFLEX PU UV PROTECT is applied as a topcoat to increase UV stability. Components A and B must be thoroughly mixed and applied at a coverage rate of 250 $g \cdot m^{-2}$.

16.6 ARBOFLEX PU SLIP RESIST (8% weight) is mixed with ARBOFLEX PU UV PROTECT and applied with a roller onto ARBOFLEX PU.

17 Repair

The repair of minor damage to the system can be achieved effectively by cleaning back to unweathered material and recoating the damaged area with the membrane at the application rates stated in section 16.

Technical Investigations

18 Tests

18.1 Tests were carried out in accordance with ETAG 005 : 2000, Parts 1 and 6, and the results assessed by the BBA to determine:

- tensile strength and elongation
- water vapour diffusion resistance coefficient μ
- watertightness
- tensile bond strength on concrete
- dynamic indentation
- static indentation
- resistance to fatigue cycling
- resistance to low temperature
- resistance to high temperature
- heat ageing
- resistance to UV ageing
- resistance to water exposure
- effect of application temperatures
- effect of day joints
- external fire performance.

18.2 Additional characteristic tests were carried out on the system and its component parts in respect of density, ash content and viscosity. The results obtained were satisfactory for this type of system.

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 Data on fire performance were evaluated.

Bibliography

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

BS 8000-0 : 2014 *Workmanship on construction sites – Introduction and general principles*
BS 8000-4 : 1989 *Workmanship on building sites — Code of practice for waterproofing*

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 — Wind actions*
NA to BS EN 1991-1-4 : 2005 +A1 : 2010 UK *National Annex to Eurocode 1 : Actions on structures — General actions — Wind actions*

BS EN 13501-5 : 2016 *Fire classification of construction products and building elements — Classification using data from external fire exposure to roofs tests*

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

DD ENV 12633 : 2003 *Method of determination of unpolished and polished slip/skid resistance value*

ETAG 005 : 2000 *Guideline for European Technical Approval of Liquid Applied Roof Waterproofing Kits Part 1: General*

ETAG 005 : 2000 *Guideline for European Technical Approval of Liquid Applied Roof Waterproofing Kits Part 6: Specific stipulations for Kits based on polyurethane*

EOTA TR 006: *Determination of the resistance to dynamic indentation*

EOTA TR 007: *Determination of the resistance to static indentation*

EOTA TR 010: *Exposure procedure for artificial weathering*

EOTA TR 011: *Exposure procedure for accelerated ageing by heat*

EOTA TR 012: *Exposure procedure for accelerated ageing by hot water*

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.

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