

Soprema UK Limited

Soprema House
Freebournes Road
Witham
Essex CM8 3UN

Tel: 00 32 14 230 707 Fax: 00 32 14 230 777

e-mail: info@soprema.co.uk

website: www.soprema.co.uk



Agrément Certificate

10/4745

Product Sheet 1

DUOFLEX STRUCTURAL WATERPROOFING

DUOFLEX ROOFING SYSTEM

This Agrément Certificate Product Sheet⁽¹⁾ relates to the Duoflex Roofing System, for use as a waterproofing for inverted roofs, green roofs, roof gardens, blue roof specifications in combination with a stormwater attenuation system⁽²⁾, and protected roofs with limited access, in flat, including zero fall, roof specifications.

(1) Hereinafter referred to as 'Certificate'.

(2) The stormwater attenuation system is outside of the scope of this 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 use of the system may 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, without damage, the limited foot traffic and loads associated with installation and maintenance (see section 9).

Resistance to penetration by roots — the system including Sopralene Flam Garden 250 AF will resist root penetration from green roof and roof garden systems (see section 10)

Durability — under normal service conditions, the system, when fully protected, will provide an effective barrier to the transmission of moisture for the life of the roof in which it is incorporated (see section 12).



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 Fifth issue: 6 September 2022

Originally certificated on 8 April 2010

Hardy Giesler
Chief Executive Officer

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 MUST check the validity and latest issue number of this Agrément Certificate by either referring to the BBA website or contacting the BBA directly.

Any photographs are for illustrative purposes only, do not constitute advice and should not be relied upon.

British Board of Agrément

1st Floor Building 3
Hatters Lane, Croxley Park,
Watford, Herts WD18 9YG

©2022

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

Regulations

In the opinion of the BBA, the Duoflex Roofing 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(2)	External fire spread
Comment:	The system, when used with a suitable surface protection, may enable a roof to be unrestricted under this Requirement. See sections 7.1 and 7.2 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 12 and the <i>Installation</i> 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 11.1 and 12 and the <i>Installation</i> part of this Certificate.	
Regulation:	9	Building standards applicable to construction
Standard:	2.8	Spread from neighbouring buildings
Comment:	The system, when used with a suitable surface protection, can be regarded as having low vulnerability and may enable a roof to be unrestricted under clause 2.8.1 ⁽¹⁾⁽²⁾ of this Standard. See sections 7.1 and 7.2 of this Certificate.	
Standard:	3.10	Precipitation
Comment:	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(a)	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 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(a)(b)(i)	Fitness of materials and workmanship
Comment:	The system is acceptable. See section 12 and the <i>Installation</i> part of this Certificate.	
Regulation:	28(b)	Resistance to moisture and weather
Comment:	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, when used with a suitable surface protection, may enable a roof to be unrestricted under the requirements of this Regulation. See sections 7.1 and 7.2 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) and 3 *Delivery and site handling* (3.1, 3.2 and 3.4) of this Certificate.

Additional Information

NHBC Standards 2022

In the opinion of the BBA, the Duoflex Roofing 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 roofs, terraces 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 Duoflex Roofing System is applied in two layers to provide a waterproofing layer with a minimum coating thickness of 6 mm. The system comprises:

- Elastocol 500 Primer — for priming substrates
- Duoflex Monolithic Membrane — a hot-applied, SBS-modified bitumen membrane
- Soprema TR200 — a 50 g·m⁻² spunbonded polyester for reinforcing the system
- Soprema Protection Layers — a range of protection layers including:
 - Sopralene Flam 180 TF — SBS-modified bitumen membrane with a polyester reinforcement. The upper surface is finished with sand and the lower surface is protected by thermofusible film
 - Sopralene Flam 180 TT — SBS-modified bitumen membrane with a polyester reinforcement. Both sides are finished with sand
 - Sopralene Flam 180 AF — SBS-modified bitumen membrane with a polyester reinforcement. The upper surface is finished with slate. The selvedge is protected by polypropylene film and the lower surface by thermofusible film
 - Sopralene Flam 250 TF — SBS-modified bitumen membrane with a polyester reinforcement. The upper surface is finished with sand and the lower surface is protected by thermofusible film
 - Sopralene Flam 250 AF — SBS-modified bitumen membrane with a polyester reinforcement. The upper surface is finished with slate. The selvedge is protected by polypropylene film and the lower surface by thermofusible film
 - Sopralene Flam Garden 250 AF — SBS-modified bitumen membrane, including an anti-root additive, with a polyester reinforcement, for use in green roof and roof garden specifications
 - Sopralene Flam Garden 250 AT — SBS-modified bitumen membrane, including an anti-root additive, with a polyester reinforcement, for use in green roof and roof garden specifications. The upper surface is finished with slate and the lower surface is finished with sand
 - Elastophene 180-25 — SBS elastomeric bitumen membrane with a non-woven polyester reinforcement. Both sides are protected by thermofusible film.

1.2 The nominal characteristics of the reinforcement and the protection layers are given in Table 1.

Table 1 Nominal characteristics

Characteristic (unit)	Soprema TR200	Sopralene Flam 180 TF and Sopralene Flam 250 TF	Sopralene Flam 180 TT	Sopralene Flam 180 AF and Sopralene Flam 250 AF	Elastophene 180-25	Sopralene Flam Garden 250 AF
Roll width (m)	1.0	1.0	1.0	1.0	1.0	1.0
Roll length (m)	200	8	10	8	10	8
Roll weight (kg)	10	40	30	46	32	45

1.3 The Certificate holder recommends the following ancillary items for use with the product, but these materials have not been assessed by the BBA and are outside the scope of this Certificate:

- Soprema Paving Support Pads
- Soprema Reinforcement Strip — a polyester-reinforced, polymer-modified bitumen sheet used to reinforce movement areas or at the interface of different materials
- Soprema Fleece Layer — a polyester-reinforced fleece for use as a filter layer
- Soprema Self-Adhesive Joint Sealant — an aluminium-lined, SBS-modified bitumen, self-adhesive sheet used to provide additional joint reinforcement and prevent ingress of the Duoflex membrane component when necessary
- Soprajoint — a flexible SBS elastomeric bitumen waterproofing strip, for use in expansion joints
- stormwater attenuation components/systems — for use in blue roof specifications.
- Sopra XPS SL- extruded polystyrene (XPS) foam rigid thermal insulation board
- Roof 115, Stratec II and Stratec II S — water reducing layers

2 Manufacture

2.1 Duoflex Monolithic Membrane is manufactured by heating and blending bitumen and other components in a temperature-controlled cycle. After blending, the mix is held in a temperature-controlled tank until it is packaged.

2.2 The protection layers are manufactured by saturating the reinforcement and coating with SBS-modified bitumen. The finished products are surfaced with thermofusible polyethylene film, sand or slate as appropriate, and the sheets are cooled, trimmed and reeled.

2.3 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.

2.4 The management system of the manufacturer has been assessed and registered as meeting the requirements of BS EN ISO 9001 : 2015 by SGS (Certificate FR18/81842815).

3 Delivery and site handling

3.1 Duoflex Monolithic Membrane is delivered to site in 20 kg blocks packed in boxes, on a pallet and shrink-wrapped in plastic. The boxes and the pallets bear the product name, and the boxes also bear the date of packaging.

3.2 The reinforcement and protection layers are packaged with labels bearing the product trade name, and should be stored under cover and kept dry.

3.3 Elastocol 500 Primer is delivered to site in 5 or 30 litre cans.

3.4 The Certificate holder has taken the responsibility of classifying and labelling the system components 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 the Duoflex Roofing System.

Design Considerations

4 Use

4.1 The Duoflex Roofing System is satisfactory for use as a waterproofing layer in:

- inverted roof specifications on flat, including zero fall, roofs with limited access, or pedestrian access with suitable protection
- protected roof specifications using pavers or other suitable protection on flat, including zero fall, roofs with limited or pedestrian access
- green roof (extensive) specifications on flat, including zero fall, roofs with limited or pedestrian access, or pitched roofs with limited access
- roof garden (intensive) specifications on flat, including zero fall, roofs with limited or pedestrian access
- blue roof specifications in combination with a stormwater attenuation system⁽¹⁾.

(1) The stormwater attenuation system is outside the scope of this Certificate.

4.2 The system is suitable for use on precast concrete, concrete block and timber substrates. The substrates must comply with the relevant requirements of BS 6229 : 2018 and, where appropriate, *NHBC Standards 2022*, Chapter 7.1.

4.3 Limited access roofs are defined for the purpose of this Certificate as those accessed only 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 provided.

4.4 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 and direction of falls, etc.

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⁽¹⁾. Reference should also be made to the appropriate clauses in Liquid Roofing and Waterproofing Association (LRWA) Note 7 – *Specifier Guidance for Flat Roofs*.

(1) *NHBC Standards 2022* require a minimum fall of 1:60 for green roofs and roof gardens.

4.6 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, 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
- blue roof — a flat roof designed to allow controlled attenuation of rain fall during heavy and storm events, as part of sustainable urban drainage systems (SUDS). Guidance for the design and construction of blue roofs is available in the *NFRC Technical Guidance Note for the construction and design of Blue Roofs*.

4.7 Metal decking is not suitable for direct application. If metal decking is used, exterior grade plywood is used to provide a suitable flat deck on top of the metal decking.

4.8 For green roofs, roof gardens and inverted roofs, structural decks to which the system is to be applied must be suitable to transmit the dead and imposed loads experienced in service. Imposed loads, dead loading and wind loads are calculated in accordance with BS EN 1991-1-1 : 2002, BS EN 1991-1-3 : 2003, BS EN 1991-1-4 : 2005 and their UK National Annexes.

4.9 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*.

4.10 The drainage systems for inverted roofs, zero fall roofs, blue roofs, green roofs or roof gardens must be correctly designed, and the following points should be addressed:

- provision made for access for maintenance purposes
- for zero fall roofs, it is particularly important to identify the correct drainage points, to ensure that drainage is sufficient and effective
- dead loads for green roofs and roof gardens can increase if the drains become partially or completely blocked causing waterlogging of the drainage layer
- additional guidance for inverted roof specifications is given in BBA Information Bulletin No 4 *Inverted roofs — Drainage and U value corrections*.

4.11 Insulation materials used in conjunction with the system must be:

- as described in the relevant clauses of BS 6229 : 2018 and approved by the Certificate holder, or
- the subject of a current BBA Certificate and used in accordance with, and within the limitations of, that Certificate and approved by the Certificate holder.

4.12 In the event that the system is contaminated by chemicals, oils and greases, the advice of the Certificate holder should be sought.

4.13 The NHBC requires that the roof membranes, once installed, be inspected in accordance with *NHBC Standards* 2022, Chapter 7.1, Clause 7.1.12, including the use of an appropriate integrity test, where required. Any damage to the membrane must be repaired in accordance with section 15 of this Certificate and reinspected.

5 Practicability of installation

The system should only be installed by trained and approved contractors using specialist equipment. Details of these are available from the Certificate holder.

6 Weathertightness



The membrane will adequately resist the passage of moisture to the interior of a building and so satisfy the relevant requirements of the national Building Regulations.

7 Properties in relation to fire



7.1 A roof incorporating the system will be unrestricted under the national Building Regulations in the following circumstances:

- protected or inverted roof specifications, including an inorganic covering 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 roof gardens and green roofs.

7.2 The classification and permissible areas of use of other specifications should be confirmed by reference to the documents supporting the national Building Regulations.

7.3 If allowed to dry, plants used may allow flame spread across the roof. This should be taken into consideration when selecting the plants for the garden. 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 system will resist the effects of wind suction likely to occur in practice.

8.2 The ballast requirements for inverted specifications should be calculated by a suitably competent and experienced individual in accordance with the relevant parts of BS EN 1991-1-4 : 2005 and its UK National Annex. The system should always be ballasted with a minimum depth of 50 mm of aggregate. In areas of high wind exposure, the Certificate holder's advice should be sought. Alternatively, concrete slabs on suitable supports can be used.

8.3 The growing medium used in roof gardens must not be of the type that will be removed or become localised owing to wind scour experienced on the roof.

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

9 Resistance to mechanical damage

9.1 The system will accept, without damage, the limited foot traffic and light concentrated loads associated with installation and maintenance operations. Reasonable care is required, however, to avoid puncture by sharp objects.

9.2 Persons working on the roof should wear soft-soled footwear, and any equipment carried onto the roof should be placed on suitable protection to prevent damage to the system.

9.3 When used over construction or expansion joints, the system can accommodate minor structural movements likely to occur under normal service conditions without damage. The methods described in section 14.3 should be followed.

10 Resistance to penetration of roots

10.1 The system including Sopralene Flam Garden 250 AF will adequately resist penetration by plant roots.

10.2 Advice on suitable planting specifications can be sought from the Certificate holder.

11 Maintenance



11.1 The system should be the subject of six monthly inspections and maintenance in accordance with the recommendations of BS 6229 : 2018, Chapter 7, and the Certificate holder's instructions, where relevant, to ensure continued satisfactory performance.

11.2 Roofs should be inspected in autumn after leaf fall and in spring to ensure that vegetation and other debris are cleared from the roof and drainage outlets. Guidance is available within the latest edition of *The Green Roof Code — Green Roof Code of Best Practice for the UK*.

11.3 In situations where maintenance or repair of any of the components in the roof structure is necessary (eg the protection layer, insulation or deck), care must be taken to avoid damage to the membrane. If damage to the membrane occurs, it must be repaired to comply with the original specification (see section 15).

12 Durability



Under normal service conditions, the system, when fully protected, will provide an effective barrier to the transmission of moisture for the life of the roof in which it is incorporated.

13 General

13.1 The Duoflex Roofing System must be installed in accordance with the Certificate holder's instructions and this Certificate, on a dry and frost-free substrate. After rain or snow, the substrate must be allowed to dry before installation can commence. The contractor can promote the drying of the substrate using suitable means approved by the Certificate holder. Once applied, the membrane is not affected by rain, snow or frost.

13.2 To assess the suitability of a substrate to receive the system, bond tests must be carried out. If bonding problems occur, advice should be sought from the Certificate holder.

13.3 Prior to the application of Duoflex Monolithic Membrane to the substrate, defects such as cracks, irregularities and areas of potential weakness should be made good, and the substrate cleaned. Where faults are not critical, additional Duoflex Monolithic Membrane may be used to fill in.

13.4 Substrates must be conditioned with Elastocol 500 Primer and allowed to dry, before application of the membrane.

14 Procedure

14.1 Duoflex Monolithic Membrane compound is heated in a thermostatically controlled bitumen boiler. The nominal temperature range for the molten membrane is 160 to 180°C. The temperature of the melt must never exceed 210°C.

14.2 The molten membrane is discharged from the boiler into a suitable container and applied to the roof using long-handled rubber squeegees for horizontal surfaces and a suitable spreader for vertical surfaces.

14.3 At expansion joints up to 30 mm wide with less than 50% movement, Soprajoint should be installed as per the Certificate holder's instructions. For structural movement joints, greater than 30 mm and 50% movement, the Certificate holder's advice should be sought regarding suitable products, the performance of which is outside the scope of this Certificate.

14.4 The first layer of the molten membrane is applied at a rate of 3 kg·m⁻².

14.5 Soprema TR200 reinforcement should be embedded by lightly brushing it into the first layer of the membrane whilst it is still warm and tacky. The reinforcement overlaps should be at least 75 mm wide.

14.6 The second layer of membrane is applied over the top of Soprema TR200 at a rate of 3 kg·m⁻².

14.7 Once the monolithic membrane has been applied, the appropriate protective membrane is installed whilst the second layer of the membrane is still hot, in accordance with the Certificate holder's instructions, prior to applying any insulation and ballast as defined by the specification.

15 Repair

Any damage to the system must be repaired as soon as possible to ensure that the integrity of the waterproofing is maintained. The system may be repaired by removing the damaged area and reinstating the system to the original specification. The advice of the Certificate holder should be sought.

16 Tests

16.1 Tests were conducted on samples of the system and the results assessed to determine:

- watertightness
- water vapour transmission
- water vapour resistance
- dynamic indentation (aged and unaged)
- static indentation (aged, unaged and water exposed)
- resistance to fatigue (aged and unaged).

16.2 Tests were conducted on samples of the compound and the results assessed to determine:

- penetration (aged, re-melted and prolonged heating)
- flow (unaged, re-melted and prolonged heating)
- low temperature flexibility (unaged, heat aged and water exposed)
- fines content.

16.3 Tests were conducted on samples of the reinforcement and the results assessed to determine:

- thickness
- mass per unit area
- tensile strength.

16.4 Tests were conducted on samples of the protection layer and the results assessed to determine:

- thickness
- tensile strength.

17 Investigations

17.1 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.

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

17.3 Data on root penetration were assessed.

Bibliography

BS 6229 : 2018 *Flat roofs with continuously supported coverings — 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 : 2005 + A1 : 2015 UK National Annex to *Eurocode 1: Actions on structures — General actions — Snow loads*

BS EN 1991-1-4 : 2005 *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 ISO 9001 : 2015 *Quality management systems — Requirements*

18 Conditions

18.1 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.

18.2 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.

18.3 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.

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

18.5 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.

18.6 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.