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BBA APPROVAL INSPECTION TESTING CERTIFICATION
TECHNICAL APPROVALS FOR CONSTRUCTION

Agrément Certificate
02/3922
Product Sheet 1

RHEPANOL

RHEPANOL FK ROOF COVERING SYSTEM

PRODUCT SCOPE AND SUMMARY OF CERTIFICATE

This Certificate relates to the Rhepanol fk Roof Covering System, a polyisobutylene membrane laminated with a polyester fleece backing for use as a waterproofing membrane on roofs with limited access.

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

Weathertightness — the system, including joints when completely sealed and consolidated, will resist the passage of moisture into the building (see section 5).

Properties in relation to fire — results of tests indicate that the system can enable a roof to be unrestricted under the current Building Regulations (see section 6).

Resistance to wind uplift — the system will resist the effects of any wind suction likely to occur in practice (see section 7).

Resistance to foot traffic — the system will accept the limited foot traffic and loads associated with the installation and maintenance of the system without damage (see section 8).

Durability — under normal service conditions the system will provide a durable waterproof covering with a service life of at least 35 years (see section 10).

The BBA has awarded this Agrément 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: 4 August 2010
Originally certificated on 6th January 2002

Simon Wroe
Head of Approvals — Materials

Greg Cooper
Chief Executive

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.

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Regulations

In the opinion of the BBA, the Rhepanol fk Roof Covering System, 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)

Requirement:	B4(2)	External fire spread
Comment:		Test data to BS 476-3 : 1958 indicate that on suitable substructures the use of the system will enable a roof to be unrestricted under this Requirement. See sections 6.1 and 6.2 of this Certificate.
Requirement:	C2(b)	Resistance to moisture
Comment:		Tests for water resistance on the membrane, including joints, indicate that the system meets this Requirement. See section 5.1 of this Certificate.
Requirement:	Regulation 7	Materials and workmanship
Comment:		The system comprises acceptable materials. See section 10.1 and the *Installation* part of this Certificate.

The Building (Scotland) Regulations 2004 (as amended)

Regulation:	8(1)(2)	Fitness and durability of materials and workmanship
Comment:		The use of the system satisfies the requirements of this Regulation. See sections 9.1, 9.2, 10.1 and the *Installation* part of this Certificate.
Regulation:	9	Building standards — construction
Standard:	2.8	Spread from neighbouring buildings
Comment:		Test data to BS 476-3 : 1958 indicate that the system, when applied to a suitable substrate, can be regarded as having low vulnerability under clause 2.8.1[1][2] of this Standard. See sections 6.1 and 6.2 of this Certificate.
Standard:	3.10	Precipitation
Comment:		Tests for water resistance, indicate that 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 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)

Regulation:	B2	Fitness of materials and workmanship
Comment:		The system comprises acceptable materials. See section 10.1 and the *Installation* part of this Certificate.
Regulation:	B3(2)	Suitability of certain materials
Comment:		The system is acceptable. See sections 9.1 and 9.2 of this Certificate.
Regulation:	C4(b)	Resistance to ground moisture and weather
Comment:		Tests for water resistance on the system, including joints, indicate that its use can enable a roof to satisfy the requirements of this Regulation. See section 5.1 of this Certificate.
Regulation:	E5(b)	External fire spread
Comment:		Data to BS 476-3 : 1958 indicate that on suitable substructures the use of the system will be unrestricted by the requirements of this Regulation. See sections 6.1 and 6.2 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 sections: 1 *Description* (1.2) and 2 *Delivery and site handling* (2.3) of this Certificate.

Non-regulatory Information

NHBC Standards 2010

NHBC accepts the use of Rhepanol fk Roof Covering System when installed and used in accordance with this Certificate as meeting Technical Requirement R3 in relation to *NHBC Standards*, Chapter 7.1 *Flat Roofs and Balconies* and Chapter 7.2 *Pitched roofs*.

Technical Specification

1 Description

1.1 The Rhepanol fk Roof Covering System consists of a smooth finished, extruded polyisobutylene membrane, with a polyester fleece backing, in roll form. The sheet incorporates a 50 mm wide self-sealing edge, protected with a release paper.

1.2 Rhepanol fk roofing sheet is available in the following nominal characteristics:

Thickness (mm)	2.5 (comprises 1.5 mm thick PIB membrane and 1 mm thick fleece)
Width (m)	0.35, 0.52, 0.65 and 1.05
Roll length (m)	10 and 15
Weight ($kg \cdot m^{-2}$)	2.6
Colour	white, grey, black

1.3 Other components of the system are:

- Rhepanol f — PIB membrane without fleece backing
- Rhepanol fk double-sealing edge — PIB membrane with a selvedge along both edges available in widths of 0.25 m, 0.35 m, 0.52 m, 0.65 m, and 1.05 m
- Gripfix — 125 mm wide, velcro fixing strips and approved fixings
- Rhepanol sealing tape
- Rhepanol cover tape — for use at cross-joints, T-joints, pipe flashings, penetrations in conjunction with Rhepanol sealing tape
- Rhepanol solvent welding agent — for welding Rhepanol to strips and collars
- Rhepanol adhesive 9 — for bonding to plywood or chipboard
- Rhepanol adhesive 90 — for bonding onto bitumen membranes (without PE foil) coverings, timber, aerated concrete and concrete
- Rhepanol contact adhesive 50 — for bonding the membrane to wall and parapet surfaces
- Rhepanol paste — used to prevent the ingress of water by capillary action at cut edges
- Rhepanol copper and zinc coatings to mimic long strip metal roofs
- decorative profiles
- stainless steel gravel stop system
- Rhepanol paint — a decorative coating for use on Rhepanol membranes available in copper and aluminium.

1.4 Rhepanol fk is manufactured by extruding a PIB compound into sheet form. A synthetic fleece is bonded to the back of the PIB leaving a 50 mm selvedge to which the self-adhesive sealing edge is applied. The finished product is rolled onto cardboard tubes.

1.5 Quality control checks are carried out on the raw materials during production and on the finished product.

2 Delivery and site handling

2.1 The roofing sheet is delivered to site in rolls, wrapped in polyethylene bags and packed in cardboard boxes. Each roll bears a label indicating length, width, weight and the BBA identification mark incorporating the number of this Certificate. The sheets are marked on one edge to show the date, shift and production batch number.

2.2 All components of the system should be stored under cover on a smooth substrate. Rolls must be stacked horizontally, not more than three high and parallel to each other. Accessories must be stored away from heat and the liquids must be kept away from naked flames.

2.3 Materials that are classified under *The Chemicals (Hazard Information and Packaging for Supply)* Regulations 2009 (CHIP4) are given in Table 1 together with flashpoints where relevant. These products bear the appropriate hazard warnings.

Table 1 Flashpoint and hazard classification

Material	Flashpoint (°C)	Classification
Rhepanol contact adhesive 50	–20	Irritant, Highly flammable, Dangerous for the environment
Rhepanol adhesive 90	–20	Irritant, Highly flammable, Dangerous for the environment
Rhepanol adhesive 9	N/A	Harmful, Irritant
Rhepanol solvent welding agent	–9	Irritant, Highly flammable, Dangerous for the environment
Rhepanol paste	35	Flammable, Dangerous for the environment

Assessment and Technical Investigations

The following is a summary of the assessment and technical investigations carried out on the Rhepanol fk Roof Covering System.

Design Considerations

3 Use

3.1 The Rhepanol fk Roof Covering System is satisfactory for use in the following roofing specifications:

- mechanically-fixed roof waterproofing layer on flat roofs with limited access
- loose-laid roof waterproof covering, ballasted with aggregate or tiles to prevent wind uplift, on parapeted flat roofs with limited access
- partially bonded on flat roofs with limited access.

3.2 For ballasted installations, the roof slope must be less than 3° (fall of less than 1 in 19) to minimise loss of ballast.

3.3 Limited access roofs are defined for the purpose of this Certificate as those roofs that are subjected only to pedestrian traffic for maintenance of the roof covering and cleaning of gutters. Where traffic in excess of this is envisaged, special precautions, such as additional protection to the membrane, must be taken. The Certificate holder's advice must be sought for information on a range of options for protective coverings and walkway systems.

3.4 Flat roofs are defined for the purpose of this Certificate as those roofs having a minimum finished fall of 1:80. Pitched roofs are defined as those having falls greater than 1:6. For design purposes twice the minimum finished fall should be assumed, unless a detailed analysis of the roof is available that includes overall and local deflection and direction of falls.

3.5 Decks to be applied with this system must comply with the relevant requirements of BS 6229 : 2003, BS 8217 : 2005 and, where appropriate, *NHBC Standards*, Chapter 7.1.

3.6 Insulation materials used in conjunction with the system must be either subject to approval of the Certificate holder:

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

3.7 Rhepanol is compatible with bitumen and resistant to a wide range of chemicals including hydrocarbons. However, where doubt arises the advice of the Certificate holder should be sought during the design stage.

4 Practicability of installation

The system should only be installed by installers who have been trained and approved by the Certificate holder.

5 Weathertightness

5.1 Results of test data confirm that the membranes, including joints, when completely sealed and consolidated will adequately resist the passage of moisture to the inside of the building and so meet the requirements of the national Building Regulations thus:

England and Wales — Approved Document C, Requirement C2(b) Section 6

Scotland — Mandatory Standard 3.10, clauses 3.10.1 and 3.10.7

Northern Ireland — Regulation C4(b).

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

6 Properties in relation to fire

6.1 When tested in accordance with BS 476-3 : 1958 a system comprising a 0.7 mm thick profiled metal decking, 0.2 mm thick vapour control layer and 65 mm mineral wool insulation using Gripfix fixing strips are mechanically fastened with a layer of Rhepanol fk membrane attached, achieved a rating of EXT.F.AA.

6.2 On flat roofs, when ballasted with a minimum of 50 mm of aggregate, the roof shall be deemed to be of designation AA.

6.3 The designation of other specifications should be confirmed by:

England and Wales — Test or assessment in accordance with Approved Document B, Appendix A, Clause A1.

Scotland — Test by a UKAS accredited laboratory to conform to Mandatory Standard 2.8, clause 2.8.1

Northern Ireland — Test or assessment carried out by a UKAS accredited laboratory, or an independent consultant with appropriate experience.

7 Resistance to wind uplift

7.1 Resistance to wind uplift of Rhepanol fk mechanically fixed using the Gripfix system is provided by attachment of the membrane to the strip, which is secured to the deck by approved fasteners. The number and position of the strips and the number of fixings and washers will depend on a number factors, including:

- wind uplift forces to be resisted
- elastic limit of the membrane
- pull-out strength of fixing
- appropriate safety factors.

7.2 The number of fixings to be used should be established by reference to the wind uplift forces calculated in accordance with BS EN 1991-1-4 : 2005 and the National Annex on the basis of a maximum permissible load of 0.5 kN per fixing.

7.3 Where Rhepanol fk is bonded to insulation boards, the resistance to wind uplift will be dependent on the cohesive strength of the insulation and the method by which it is secured to the roof deck. This should be taken into account when the insulation material is selected. Tests indicate that on substrates with high cohesive strength the adhesion of Rhepanol fk is sufficient to resist the effects of wind suction, thermal cycling or minor structural movements occurring in practice.

7.4 When used in a loose-laid and ballasted system the precise ballast requirements should be calculated in accordance with the relevant parts of BS EN 1991-1-4 : 2005 and the National Annex, but should be a minimum of 50 mm thick layer of 20 mm to 40 mm graded gravel. The use of concrete slabs on suitable supports should be considered in areas of high wind exposure and the advice of the manufacturer should be sought.

8 Resistance to foot traffic

8.1 Results of test data indicate that the system can accept, without damage, the limited foot traffic and light concentrated loads associated with installation and maintenance operations. However, reasonable care should be taken to avoid puncture by sharp objects or concentrated loads (see Table for *Physical properties — general*).

8.2 In any situation where regular traffic is envisaged (eg maintenance of lift equipment), a walkway must be provided using concrete slabs supported on suitable bearing pads, or a protective layer. In addition, some types of bearing pads will require the use of a protective sheet laid between the roof covering and the pads. The advice of the Certificate holder should be sought on the most appropriate method to be used depending on the level of traffic envisaged.

9 Maintenance

9.1 Roofs covered with the system should be the subject of routine maintenance inspections during the spring and autumn to ensure the continued security and performance of the waterproofing.

9.2 The roof, including the drains, should be cleared of debris and any damage to the waterproofing membrane repaired in accordance with the Certificate holder's instructions (see section 14).

10 Durability

10.1 The product has been used in Germany and the United Kingdom since 1961. Accelerated weathering tests and physical evidence confirm that satisfactory retention of physical properties is achieved and the Rhepanol fk Roof Covering System will have a life of at least 35 years.

10.2 The BBA has examined existing installations in Germany that have been in service since 1973. Tests conducted on materials sampled from these installations, including tests after additional accelerated ageing confirm satisfactory retention of physical properties and indicate that an extended service life of up to 40 years can be achieved.

10.3 Where an extended service life is required, the Certificate holder or his agent must carry out inspections at the beginning, end and, if required, during the installation to ensure that the necessary preparatory work and installation has been carried out in accordance with the specification for the work. In addition, post-installation inspections should also be carried out under the Certificate holder's Quality Management System at maximum intervals of five years.

10.4 Routine maintenance inspections should also be carried out during the spring and autumn in accordance with the recommendations given in BS 6229 : 2003.

Installation

11 General

11.1 Installation of the Rhepanol fk Roof Covering System must be strictly in accordance with the Certificate holder's application instructions and should only be carried out by trained and approved contractors.

11.2 In all cases, a vapour barrier should be used directly over the deck.

11.3 The membrane may be applied over glass tissue-faced insulation materials and fixed to the substructure in such a way as not to impair the performance of the waterproofing membrane. Other insulation materials suitable for use with the membrane are polystyrene, polyisocyanurate and mineral fibre.

11.4 Deck surfaces should be clean, dry, and free from sharp projections such as nail heads and concrete nibs.

11.5 The membrane may be laid in conditions normal to roofing work. To prevent the entrapment of moisture under the membrane it must not be laid in wet or damp weather conditions, or at temperatures below 5°C.

12 Procedure

Mechanically-fixed applications using the Gripfix system

12.1 Gripfix strips should run perpendicular to the direction of the Rhepanol fk membrane and perpendicular to the span direction of the corrugated steel decking or timber boarding.

12.2 The strips are rolled out and laid flat avoiding undue rippling at the designed spacing. The maximum distance between strips must not exceed 1.2 m.

12.3 Fixings with a maximum 50 mm diameter circular washer or 40 mm by 82 mm oval washer are selected in accordance with the Certificate holder's instructions. They are installed flush with the insulation at fixing centres in accordance with the wind uplift calculations.

12.4 The Rhepanol fk membrane is rolled out over the Gripfix strips. To assist laying the roofing membrane more accurately, the first few Gripfix strips may be temporarily covered eg, with unbacked membrane or sheet metal. When correctly aligned, the covers can be removed and the membrane fixed in position.

12.5 Adjacent membranes are overlapped by at least 50 mm and end laps should be stepped by a minimum of 300 mm and secured with a Gripfix strip below the joint. Alternatively, end laps may be covered with 250 mm wide, double-sealing edge Rhepanol fk.

12.6 The lower membrane below the seam is cleaned with Rhepanol solvent welding agent using a cloth. The protective release paper is removed from the upper membranes sealing edge and the seam is rolled out with a heavy-duty roller. The Gripfix strips are thoroughly rolled to ensure flat contact between the membranes.

Loose-laid

12.7 Two rolls of Rhepanol fk are rolled out, with the sealing edge overlapping the next roll. The lower roll seam is cleaned with Rhepanol solvent welding agent, using a cloth or flat brush provided. The backing to the self-sealing strip is pulled out and the joint pressed down. The joint is then consolidated with the heavy-duty roller provided. End laps are sealed using Rhepanol sealing tape.

12.8 When using the loose-laid specification, the loading medium should be laid on the roof covering as soon as possible to avoid damage to the sheets or joints due to wind uplift.

Partially bonded

12.9 The deck is prepared and underlayers applied, using traditional techniques. Rhepanol fk is then laid partially bonded using Rhepanol adhesive 90 or hot bitumen, following normal procedures ensuring that Rhepanol adhesive 90 or the bitumen is kept well away from the lap joint. The lap joint is then sealed as described in section 12.5. On timber, Rhepanol adhesive 9 is used but is applied to the whole surface.

12.10 On inclined surfaces where the use of hot bitumen is impracticable, Rhepanol contact adhesive 50 is used in accordance with the Certificate holder's instructions. On sloping roofs with falls in excess of 1:3, the sheets must incorporate mechanical fixings. Decorative profiles are added by self-adhesive method of attachment.

General

12.11 The solvent materials used in the system have a low flashpoint and care must be taken to avoid naked flames.

12.12 After completion of the jointing process the lap should be tested for complete watertightness.

13 Details

13.1 The Certificate holder supplies a range of prefabricated Rhepanol fk shapes for the installation of details and flashing.

13.2 The area of roofing sheets where flashing is to be jointed must be clean, dust-free and dry. It is essential that a full even support is provided under the area for jointing and that the joint is correctly consolidated.

13.3 Rainwater outlets should be fitted with guards to prevent the aggregate blocking them and also to stop any local loss of depth to the ballasting when using the loose-laid specification.

14 Repair

In the event of damage, repair should be carried out in accordance with the Certificate holder's instructions. Repair should be carried out by applying a patch of the membrane extending at least 50 mm beyond the defect. The damaged area should be cut back to sound membrane and the area to be bonded cleaned back to unweathered material and patched using Rhepanol f or with a self-adhesive cover tape.

15 Tests

15.1 Data from tests carried out by various independent organisations including BAM, CSTB and UBAtc, were evaluated in the context of UK roofing practice. Additional data from tests carried out by the BBA were also assessed. The results of both sets of test data, which show typical results for the membrane are summarised in Tables 2 and 3.

Table 2 Physical properties — general

Test (units)	Mean result	Method
Water vapour permeability ($g \cdot m^{-2} \cdot day^{-1}$)	0.043	BS 3177 (25°C/75% RH)
Water vapour resistance ($MN \cdot s \cdot g^{-1}$)	4770	BS 3177 (25°C/75% RH)
Shore hardness	65	DIN 53505
Dynamic indentation		MOAT 27 : 5.1.10
hard substrate	I_4	
soft substrate	I_4	
Static indentation		MOAT 27 : 5.1.9
hard substrate	L_4	
soft substrate	L_4	
Low temperature flexibility (°C)	–30	MOAT 27 : 5.4.2

Table 3 Physical properties — directional

Test (units)	Mean results		Method
	Longitudinal	Transverse	
Tensile strength (N per 50 mm)			BS EN ISO 527-1
unaged	421	403	
heat aged(1)	418	397	
UV aged(2)	450	394	
Elongation at break (%)			BS EN ISO 527-3
unaged	529	552	
heat aged(1)	533	599	
UV aged(2)	524	526	
Dimensional stability (%)			DIN 16935
heat aged(3)	0.5	0.1	

(1) 56 days at 80°C.

(2) BS EN ISO 4892-3 : 2000, 4 hours UV at 50°C, 4 hours condensation at 50°C for 1000 light hours.

(3) 6 hours at 80°C.

15.2 Test data on the following properties were also examined:

- joint peel strength
- joint shear strength
- wind uplift
- resistance to nail tear
- resistance to water pressure.

16 Investigations

16.1 Existing data on the fire performance of the membrane were examined.

16.2 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.

16.3 Visits were made to sites in progress to assess the methods of application.

16.4 Wind uplift data on mechanically-fixed system using Gripfix from WSP, Germany tested in accordance with MOAT No 55 : 1991, were examined.

16.5 An assessment of the systems' durability was made, based on data from existing sites and data resulting in the issue of previous BBA Certificate No 87/1858/C (BRAAS Rhepanol fk Roof Covering System).

16.6 A reassessment of the original *Durability* statement was made based on a visit to old existing sites in Germany and on tests conducted on naturally-aged material.

Bibliography

BS 476-3 : 1958 *Fire tests on building materials and structures — External fire exposure roof test*

BS 3177 : 1959 *Method for determining the permeability to water vapour of flexible sheet materials used for packaging*

BS 6229 : 2003 *Flat roofs with continuously supported coverings — Code of practice*

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

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

BS EN ISO 527-1 : 1996 *Methods of testing plastics — Mechanical properties — Determination of tensile properties — General principles*

BS EN ISO 527-3 : 1996 *Plastics — Determination of tensile properties — Test conditions for films and sheets*

BS EN ISO 4892-3 : 2000 *Plastics — Methods of exposure to laboratory light sources — Fluorescent UV lamps*

DIN 16935 : 1986 *Polyisobutylene (PIB) Waterproofing sheet; requirements*

DIN 53505 : 1987 *Shore A and Shore D hardness testing of rubber*

MOAT No 27 : 1983 *General Directive for the Assessment of Roof Waterproofing Systems*

MOAT No 55 : 1991 *UEAtc Supplementary guide for the assessment of mechanically fastened roof waterproofing*

Conditions of Certification

17 Conditions

17.1 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.

17.2 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.

17.3 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.

17.4 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.

17.5 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.

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