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Agrément Certificate
04/4120
Product Sheet 1

THERMOPLAN SINGLE PLY FPO ROOF WATERPROOFING MEMBRANES

THERMOPLAN T

This Agrément Certificate Product Sheet(1) relates to Thermoplan T, a range of flexible polyolefin (FPO) membranes with synthetic fibre reinforcement for use as single-ply roof waterproofing membranes.

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

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

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

Resistance to foot traffic — the membranes will accept the limited foot traffic and loads associated with installation and maintenance (see section 9).

Resistance to penetration of roots — membranes 1.5 mm and thicker will adequately resist plant root penetration (see section 10).

Durability — under normal service conditions the membranes will provide a durable roof waterproofing with a service life in excess of 20 years (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 Third issue: 25 July 2016

John Albon – Head of Approvals Construction Products

Claire Curtis-Thomas
Chief Executive

Originally certificated on 1 September 2004

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

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Regulations

In the opinion of the BBA, Thermoplan T, 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 use of the membranes will enable a roof to be unrestricted under this Requirement. See sections 7.1 to 7.4 of this Certificate.
Requirement:	**C2(b)**	**Resistance to moisture**
Comment:		The membranes, including joints, can enable a system to meet this Requirement. See section 6.1 of this Certificate.
Regulation:	**7**	**Materials and workmanship**
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 use of the membranes satisfies 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:		The membranes, when applied to a suitable substructure, are regarded as having a low vulnerability under clause 2.8.1(1)(2) of this Standard. See sections 7.1 to 7.4 of this Certificate.
Standard:	3.10	Precipitation
Comment:		The membranes, including joints, 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 products 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 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:		Tests on the membranes, including joints, indicate that their use can 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 will be unrestricted by the requirements of this Regulation. See sections 7.1 to 7.4 of this Certificate.

Construction (Design and Management) Regulations 2015
Construction (Design and Management) Regulations (Northern Ireland) 2007

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

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

Additional Information

NHBC Standards 2016

NHBC accepts the use of Thermoplan T, provided they are installed, used and maintained in accordance with this Certificate, 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 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 Thermoplan T are a range of flexible polyolefin (FPO) single-ply membranes, reinforced with synthetic fibre. The 1.5 mm membrane is available in a fleece-backed version.

1.2 The membranes are manufactured to the nominal characteristics given in Table 1.

Table 1 Nominal characteristics

Characteristic (unit)	**Membrane type**				
	T12	**T15**	**T18**	**T20**	**T15FB[1]**
Thickness* (mm)	1.2	1.5	1.8	2.0	1.5[2]
Width* (m)	1.5	1.5	1.5	1.5	1.5
Length* (m)	25	20	20	20	20
Mass per unit area* ($kg \cdot m^{-2}$)	1.5	1.8	2.1	2.3	2.1
Tensile strength* ($N \cdot 50\ mm^{-1}$)	≥1000	≥1000	≥1000	≥1000	≥1000[2]
Elongation at break* (%)	≥19	≥19	≥19	≥19	≥19[2]
Tear strength* (N)	>300	>320	>380	>400	>380
Dynamic indentation* (mm)					
hard substrate	>550	>700	>900	>900	>800
soft substrate	>800	>950	>1300	>1300	>1300
Static indentation* (kg)					
hard substrate	≥20	≥20	≥20	≥20	≥20
soft substrate	≥20	≥20	≥20	≥20	≥20
Dimensional stability* (%)	<0.3	<0.3	<0.3	<0.3	<0.3
Low temperature foldability* (°C)	<–30	<–30	<–30	<–30	<–30

(1) Fleece-backed version.
(2) Membrane excluding fleece.

1.3 All the membranes are available in pearl white, with the T15 and T15V ranges also available in silver grey.

1.4 Ancillary items for use with the membranes include:

- Thermoplan T TL — a 1.5 mm thick, unreinforced FPO membrane for use in areas of complex detailing
- Thermoplan FB14 Coated Metal Sheet — a 0.6 mm thick hot-dip galvanized steel plate, laminated on one side with a 0.8 mm thick layer of Thermoplan FPO, for use in creating flashings and detailing
- Thermoplan Preformed Corners — shaped profiles for creating corner features
- Thermoplan FPO Cleaner/Activator — for cleaning and weld preparation
- Bauder Polyurethane Membrane Adhesive — for bonding Thermoplan T15FB to substrates
- Thermoplan Linear Fixing Bars — for use in bar mechanically-fastened specifications
- a range of outlets and pipe accessories.

1.5 Ancillary items outside the scope of the Certificate for use with the membranes include:

- Thermoplan Vapour Barrier 25 and 40 — 0.25 mm and 0.40 mm thick polyethylene films to act as vapour control layers
- Thermoplan Adhesive Tape 03 — for sealing the seams of vapour control layers
- Thermoplan Adhesive Tape 20 — for sealing vapour control layers to walls
- Bauder Thermoplan Full Bond Adhesive 4926 — a contact adhesive for bonding Thermoplan T membranes to concrete, metal and timber
- Thermoplan Contact Adhesive Thinner — used to thin the contact adhesive and remove waste glue on unwanted areas
- Thermoplan 300 $g \cdot m^{-2}$ Protection Fleece — to separate and protect membrane when overlaying existing bituminous roofing or under ballasted/green roof systems
- Thermoplan DR 300 $g \cdot m^{-2}$ Protection Fleece — for use when mechanically fastening concrete decks
- Bauder Insulation — for use in warm roof applications
- Xerofloor Sedum Blanket System — including accessory components
- Thermoplan 4 mm diameter peel-stop cord — used to form peel-stop detailing at perimeters
- Thermoplan AL 80/100 Ballast Edge Trim — a drainage trim used in ballasted roof specifications
- Thermoplan Walkway — a 2 mm unreinforced anti-slip membrane.

2 Manufacture

2.1 The membranes are manufactured from an FPO compound by extrusion and lamination with a synthetic reinforcement and, in the case of the backed product, a polyester fleece.

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 being operated by the manufacturer are being maintained.

2.3 The management system of Paul Bauder GmbH has been assessed and registered as meeting the requirements of EN ISO 9001 : 2008 by DQS GmbH (Certificate De-002735 QM).

2.4 The membranes are manufactured in Germany by Paul Bauder GmbH.

3 Delivery and site handling

3.1 The membranes are delivered to site in rolls, shrink-wrapped in plastic, on pallets. Labels on the rolls bear the

Certificate holder's name, product name, dimensions, product code, batch number, date of manufacture and the BBA logo incorporating the number of this Certificate.

3.2 Rolls should be stored horizontally on a clean, dry, level surface and under cover.

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 Thermoplan T.

Design Considerations

4 General

4.1 Thermoplan T membranes are satisfactory for use as a waterproofing layer in:

- mechanically-fastened systems on flat and pitched roofs with limited access
- fully-adhered systems on flat and pitched roofs with limited access
- loose-laid and ballasted waterproofing for flat roofs with limited access
- green roof specifications on flat roofs where the finished fall of the roof bearing the drainage layer is between 1:60 and 1:20, with limited or pedestrian access (1.5 mm and above).

4.2 The falls for green roofs and roof garden specifications are provided by either the roof decking or cut-to-falls insulation.

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, additional protection to the membrane must be provided (see section 9).

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

4.5 Decks to which the membranes are to be applied must comply with the relevant requirements of either BS 6229 : 2003 or BS 8217 : 2005 and, where appropriate, *NHBC Standards* 2016, Chapter 7.1 *Flat roofs and balconies*.

4.6 Insulation materials to be used in conjunction with the membranes 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.

4.7 Imposed load, dead loading and wind load specifications 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 respective UK National Annexes.

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

4.9 For green roofs and roof gardens, structural decks to which the products are to be applied must be suitable to transmit the dead and imposed loads experienced in service.

4.10 The drainage system for green roofs or 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.

5 Practicability of installation

Installation of the products must only be carried out by installers trained and approved by the Certificate holder.

6 Weathertightness

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

6.2 The membranes are impervious to water and will achieve a weathertight roof capable of accepting minor structural movement.

7 Properties in relation to fire

7.1 Results of tests indicate the following systems will be designated as unrestricted:

- an 18 mm plywood deck, Thermoplan Vapour Barrier 25, a 50 mm Bauder Eurotherm UEF polyurethane insulation board mechanically fastened to the deck, and a layer of Thermoplan T12 membrane
- an 18 mm WBP plywood deck, Bauder KSD Duo Vapour Barrier, Bauder Thermotech PIR 50 mm insulation and fleece-backed Thermoplan T15FB membrane, fully adhered using Bauder Polyurethane Membrane Adhesive.

7.2 The membranes, when used in protected or inverted roof specifications, including an inorganic covering listed in the Annex of Commission Decision 2000/553/EC, can be considered to be unrestricted under the national Requirements.

7.3 The designation of other specifications should be confirmed by:

England and Wales — test or assessment in accordance with Approved Document B, Appendix A, Clause 1
Scotland — test to conform to Mandatory Standard 2.8, Clause 2.8.1
Northern Ireland — test or assessment by a UKAS-accredited laboratory, or an independent consultant with appropriate experience.

7.4 In the opinion of the BBA, when used in irrigated roof gardens or green roofs the membranes will be unrestricted under the national Requirements.

7.5 If allowed to dry, plants used in a roof garden 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 the overall fire-rating of the roof is not compromised.

8 Resistance to wind uplift

8.1 The resistance to wind uplift of a mechanically-fastened waterproofing layer is provided by the fixing bar and fasteners passing through the membrane into the substrate. The number and position of fixings will depend on a number of factors including:

- wind uplift forces to be restrained
- pull-out strength of the fasteners
- tensile properties of the membrane
- appropriate calculation of safety factors.

8.2 The wind uplift forces are calculated in accordance with BS EN 1991-1-4 : 2005 and its UK National Annex. On this basis, the number of fixings required should be established using a maximum permissible load of 0.4 kN per fixing.

8.3 Wind uplift load results from testing on an installed system are given in Table 2.

Table 2 Load per fixing

Fixing type	Load per fixing (N)	Corrected load per fixing (N)
zahn ZKSK — WD100 fixings	1600	740
zahn ZDBS fixings	800	507

8.4 Results of tests indicate that the adhesion of bonded systems is sufficient to resist the effects of wind suction, thermal cycling or other minor structural movements likely to occur in service.

8.5 Where the membrane 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 must be taken into account when selecting a suitable insulation material.

8.6 The ballast requirements for loose-laid and ballasted systems should be calculated in accordance with the relevant parts of BS EN 1991-1-4 : 2005 and its UK National Annex. When gravel ballast is used, the system should always be loaded 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.

8.7 The soil used in roof gardens and ballast on inverted/protected roofs must not be of a type that will be removed or become delocalised owing to wind scour experienced on the roof.

8.8 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 foot traffic

9.1 Results of tests indicate that the products can accept 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 traffic in excess of this is envisaged, such as for maintenance of lift equipment, a walkway should be provided; for example, using concrete slabs supported on bearing pads.

9.2 Once the green roof or roof garden is installed it can be regarded as a suitable protection for the membrane in use. However, it should be recognised that the membrane is taken up beyond the level of the soil (at least 150 mm) and is therefore vulnerable to damage in those areas.

10 Resistance to penetration of roots

Results of tests on the 1.5 mm membrane indicate that it is resistant to root penetration. This and thicker membranes can be used in a roof waterproofing system for roof gardens and green roofs.

11 Maintenance

11.1 Systems must be the subject of annual inspections and maintenance to ensure continued performance. Exposed membrane must be free from the build-up of silt, unwanted vegetation and other debris.

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

11.3 Green roofs and roof gardens must be the subject of regular inspections, particularly in autumn after leaf fall and in the spring, to ensure unwanted vegetation and other debris are cleared from the roof and drainage outlets. Guidance is available within *The GRO Green Roof Code — Green Roof Code of Best Practice for the UK*.

12 Durability

Accelerated weathering tests confirm that satisfactory retention of physical properties is achieved. Available evidence indicates that the products should have a life in excess of 20 years.

13 Reuse and recyclability

The products comprise thermoplastic polyolefin and polyester, which can be recycled.

Installation

14 General

14.1 Installation of Thermoplan T membranes must be carried out by trained and approved installers working in accordance with the relevant clauses of the Certificate holder's instructions and BS 8000-4 : 1989.

14.2 Conditions on site should be those for normal roof waterproofing work. Deck surfaces must be dry, clean and free from sharp projections such as nail heads and concrete nibs. When used over a rough substrate, a suitable protection layer should be placed over the substrate.

14.3 Insulation boards should be fixed to the substrate in such a way as not to impair the performance of the waterproofing membrane.

14.4 Installation should not be carried out during wet weather (eg rain, fog, snow) nor when the temperature is below 5°C unless suitable precautions against surface condensation are taken.

14.5 All flashings are formed in accordance with the Certificate holder's instructions.

14.6 Soil or other bulk material must not be stored on one area of the roof prior to installation, to ensure that localised overloading does not occur.

15 Procedure

Loose-laid and ballasted system

15.1 The membrane is laid out flat onto the substrate without folds or ripples, with 100 mm overlaps.

15.2 The membrane is mechanically fastened at perimeters, the laps are welded together, and the detailing work is carried out.

15.3 The membrane should be covered with a protective sheet prior to application of a 50 mm minimum thick layer 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 the distance of one metre. Alternatively, concrete slabs on suitable supports can be used.

15.4 For green roof or garden roof applications, the Certificate holder's instructions must be strictly followed.

Mechanically fastened

15.5 The membrane is laid out flat onto the substrate without folds or ripples, with 100 mm overlaps, and secured against wind uplift by sandbags or other suitable means prior to installation of fasteners.

15.6 The membrane is fastened to the deck (through insulation boards, where appropriate) in the joint overlaps prior to welding of the joint. The fastener screw should be positioned 30 mm from the edge of the membrane (10 mm from the edge of plate). The fixings should be installed at centres calculated from the average wind force in that area.

Fully-adhered system

Thermoplan T membranes

15.7 When using Bauder Thermoplan Full Bond Adhesive 4926, the advice of the Certificate holder should be sought on the suitability of substrates. When applying the adhesive over faced PIR insulation boards, a suitable foil tape is installed over any joints in the board, to ensure that there is no contact between unfaced insulation and the material. The adhesive must not be used in conjunction with polystyrene insulation.

15.8 The membrane is unrolled onto the substrate, without ripples, and rolled back to expose the underside.

15.9 A coat of the adhesive is applied to the substrate at an application rate of 4 $m^2 \cdot kg^{-1}$, depending on the surface roughness of the substrate. The adhesive should only be applied to cover the area over which the membrane is to be laid.

15.10 The adhesive is allowed to dry for 5 to 10 minutes or until touch-dry. After 30 minutes, the surface of the bonded material is again rolled and pressed to assist with the bonding process.

Thermoplan T15FB

15.11 When using Bauder Polyurethane Membrane Adhesive, the advice of the Certificate holder should be sought on the suitability of substrates. The adhesive must not be used in conjunction with polystyrene insulation or mastic asphalt.

15.12 The membrane is unrolled onto the substrate, without ripples, and rolled back to expose the underside.

15.13 A coat of adhesive is applied to the substrate at an application rate of 150 to 250 $g \cdot m^{-2}$, depending on the surface roughness of the substrate. The adhesive is applied in six strips per metre and spread using a roller to cover the area where the membrane is to be laid.

15.14 The membrane is rolled onto the adhesive approximately 5 to 10 minutes after application. After initial contact, the surface of the membrane is rolled and pressed to ensure full contact. After 30 minutes, the surface of the bonded material is again rolled and pressed to assist with the bonding process.

16 Jointing

16.1 The welding area must be dry and clean. If the membrane in the weld area has become contaminated, it must be cleaned in accordance with the Certificate holder's instructions.

16.2 Welding is carried out either by hand or by automatic welding machine.

16.3 The welded width of the joint must be a minimum of 50 mm. Care must be taken that overheating of the membrane does not occur, as possible impairment of the membrane may result.

16.4 The seam should be tested with a suitable metal probe, and any weakness repaired immediately.

17 Repair

In the event of damage, repairs can be carried out by cleaning the area around the damage and applying a patch as described in the Certificate holder's instructions.

Technical Investigations

18 Tests

18.1 An assessment was made on data to EN 13956 : 2012 in relation to:

- thickness

- width
- mass per unit area
- flatness
- straightness
- watertightness
- effects of liquid chemicals
- peel resistance of joint
- shear resistance of joints
- water vapour resistance
- tensile force
- elongation at break
- dynamic indentation
- static indentation
- resistance to root penetration
- dimensional stability
- low temperature foldability
- effect of exposure to UV.

18.2 Tests were carried out on samples of Thermoplan T membranes and the results evaluated to determine:

- nail tear resistance
- resistance to cyclic movement
- peel resistance from substrate
- wind uplift resistance (mechanically-fastened system)
- effect of long term exposure to soil
- the effect of heat ageing

to assess:

- robustness during service
- the effect of substrate movement
- effect of temperature
- resistance to wind (fully-adhered and mechanically-fastened systems)
- durability.

19 Investigations

19.1 Fire data reports were evaluated.

19.2 Visits to sites in progress were carried out and installation instructions evaluated to assess the practicability of installation.

19.3 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.

Bibliography

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

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 *Eurocode 1 : Actions on structures — General actions — Snow loads*

NA to BS EN 1991-1-3 : 2003 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 UK National Annex to *Eurocode 1 : Actions on structures — General actions — Wind*

actions

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

EN ISO 9001 : 2008 *Quality management systems — Requirements*

Conditions of Certification

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 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.