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Agrément Certificate  
**98/3491**  
Product Sheet 1

### RHENOFOL PVC ROOF COVERING SYSTEMS

#### RHENOFOL CV, CG and CGv

This Agrément Certificate Product Sheet<sup>(1)</sup> relates to Rhenofol CV, CG and CGv, a range of PVC roof waterproofing membranes reinforced with either a glass or polyester mat for use as waterproofing on flat 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 systems will resist the passage of moisture into the building (see section 6).

**Properties in relation to fire** — the use of the systems can enable a roof to be unrestricted under the current Building Regulations (see the Regulations section and section 7).

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

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

**Durability** — under normal service conditions the systems should provide a durable waterproof covering with a service life of at least 35 years (see section 11).

The BBA has awarded this Certificate to the company named above for the systems described herein. These systems 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 Seventh issue: 15 September 2016

John Albon — Head of Approvals

Claire Curtis-Thomas

Originally certified on 27 April 1998

Construction Products

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](http://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, Rhenofol CV, CG and CGv 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 systems will enable a roof to be unrestricted under this Requirement. See section 7 of this Certificate.
Requirement:	C2(b)	Resistance to moisture
Comment:		The systems can contribute to satisfying this Requirement. See section 6.1 of this Certificate.
Regulation:	7	Materials and workmanship
Comment:		The systems comprise acceptable materials. See section 11 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 systems can contribute to a construction meeting this Regulation. See sections 10 and 11.1 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 systems, when applied to a non-combustible substrate, can be regarded as having low vulnerability under clause 2.8.1 <sup>(1)(2)</sup> of this Standard. See section 7 of this Certificate.
Standard:	3.10	Precipitation
Comment:		Tests for water resistance, indicate that the use of the systems will enable a roof to satisfy the requirements of this Standard, with reference to clauses 3.10.1 <sup>(1)(2)</sup> and 3.10.7 <sup>(1)(2)</sup> . See section 6.1 of this Certificate.
Standard:	7.1(a)	Statement of sustainability
Comment:		The systems can contribute to meeting the relevant requirements of Regulation 9, Standards 1 to 6 and therefore will contribute to a construction meeting a bronze level of sustainability as defined in this Standard.
Regulation:	12	Building standards applicable to conversions
Comment:		All comments given for these systems under Regulation 9, Standards 1 to 6 also apply to this Regulation, with reference to clause 0.12.1 <sup>(1)(2)</sup> and Schedule 6 <sup>(1)(2)</sup> . (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 systems are acceptable. See section 11.1 and the <i>Installation</i> part of this Certificate.
Regulation:	28(b)	Resistance to moisture and weather
Comment:		The membranes, including joints, will enable a roof to meet the requirements of this Regulation. See section 6.1 of this Certificate.
Regulation:	36(b)	External fire spread
Comment:		On a suitable substructure, the use of the membranes will enable a roof to be unrestricted under the requirements of this Regulation. See section 7 of this Certificate.

### Construction (Design and Management) Regulations 2015

### Construction (Design and Management) Regulations (Northern Ireland) 2016

Information in this Certificate may assist the client, designer (including Principal Designer) and contractor (including Principal Contractor) to address their obligations under these Regulations.

See sections: 1 *Description* (1.4) and 3 *Delivery and site handling* of this Certificate.

## Additional Information

### NHBC Standards 2016

NHBC accepts the use of Rhenofol CV, CG and CGv, provided they are installed, used and maintained in accordance with this Certificate, as meeting Technical Requirement R3 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 systems, 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 Rhenofol CV is a polyester mat-reinforced PVC membrane for use as a mechanically-fixed waterproofing layer, with solvent or hot-air welded lap joints. The membrane is fixed using galvanized or plastic screw-attached fixing plates.

1.2 Rhenofol CG is a glass mat-reinforced PVC membrane for use loose-laid and ballasted, with solvent or hot-air welded lap joints.

1.3 Rhenofol CGv is a glass-reinforced PVC membrane with a polyester fleece backing, for use bonded. The membrane has a 50 mm longitudinal selvedge without fleece to allow jointing with solvent or hot-air welding.

1.4 The membranes are manufactured with the nominal characteristics shown in Tables 1 and 2.

*Table 1 Nominal characteristics — CV*

Characteristic (unit)	CV membrane (thickness)			
	1.2 mm	1.5 mm	1.8 mm	2.0 mm
Length (m)	20	15,20	15	15
Width (m)	0.68, 1.03, 1.50, 2.05	0.50, 0.68, 1.03, 1.50, 2.05	1.03, 1.50	1.50
Weight (kg·m <sup>-2</sup> )	1.47	1.85	2.25	2.48
Tensile strength* (N/50 mm)	≥1000	≥1000	≥1000	≥1000
Tensile strength* (N/mm <sup>2</sup> )	–	–	–	–
Low temperature flexibility*(°C)	≤ -30	≤ -30	≤ -30	≤ -30
Resistance to impact*(mm)				
hard substrate	≥600	≥600	≥600	≥600
soft substrate	≥700	≥700	≥700	≥700
Dimensional stability (%)	≤ 0.2	≤ 0.2	≤ 0.2	≤ 0.2
Colours	grey, anthracite, white, blue, green, terracotta	grey, anthracite, white, blue, green, terracotta	grey	grey

*Table 2 Nominal characteristics — CG and CGv*

Characteristic (unit)	CG membrane (thickness)				CGv membrane (thickness)	
	1.2 mm	1.5 mm	1.8 mm	2.0 mm	1.8 mm (1.2 PVC + fleece)	2.1 mm (1.5 PVC + fleece)
Length (m)	20	15	15	15	15	15
Width (m)	2.05	2.05	2.05	2.05	2.05	2.05
Weight (kg·m <sup>-2</sup> )	1.54	1.88	2.28	2.53	1.70	2.10
Tensile strength* (N/50 mm)	–	–	–	–	≥ 600	≥ 600
Tensile strength* (N/mm <sup>2</sup> )	≥10	≥10	≥10	≥10	–	–
Low temperature flexibility*(°C)	≤ -30	≤ -30	≤ -30	≤ -30	≤ -30	≤ -30
Resistance to impact*(mm)						
hard substrate	≥500	≥500	≥500	≥500	≥500	≥500
soft substrate	≥600	≥600	≥600	≥600	≥600	≥600
Dimensional stability (%)	≤ 0.05	≤ 0.05	≤ 0.05	≤ 0.05	≤ 0.05	≤ 0.05
Colours	grey	grey	grey	grey	grey, anthracite	grey, anthracite

1.5 Ancillary items necessary for installation of the systems and included in this assessment are:

- Rhenofol C roof sheet — a non-reinforced PVC roofing sheet, used for on-site fabricated detailing
- Prefabricated details — a range of prefabricated internal and external corners manufactured from Rhenofol C
- Rhenofol coated metal — a 0.6 mm thick galvanized steel plate, coated with 0.85 mm of Rhenofol C compound, for use in edge detailing
- Rhenofol CGv adhesive — a single-component, polyurethane adhesive used to bond Rhenofol CGv membrane to substrate

- Rhenofol Solvent Welding Agent (Tetrahydrofuran) — solvent for use in joint welding
- Rhenofol Contact Adhesive 20 — for use on upstands and other detailing
- 120 g·m<sup>-2</sup> glass fibre mat — for use as a separation layer
- FDT Synthetic Fleece (300 g·m<sup>-2</sup>) — for use as separation and/or protection layer
- polyethylene membrane — for use as a vapour control layer.

## 2 Manufacture

2.1 The membranes comprise upper and lower layers manufactured by a calender-mould process. The layers are thermally fused together, sandwiching the reinforcement mat between the layers.

2.2 As part of the assessment and ongoing surveillance of product quality, the BBA has:

- agreed with the manufacturer the quality control procedures and product testing to be undertaken
- assessed and agreed the quality control operated over batches of incoming materials
- monitored the production process and verified that it is in accordance with the documented process
- evaluated the process for management of nonconformities
- checked that equipment has been properly tested and calibrated
- undertaken to carry out the above measures on a regular basis through a surveillance process, to verify that the specifications and quality control operated by the manufacturer are being maintained.

2.3 The management system of Flachdach Technologie GmbH & Co KG has been assessed and registered as meeting the requirements of BS EN ISO 9001 : 2008 by TÜV SÜD Management Services (Certificate 12 100 22279 TMS).

2.4 The systems are manufactured in Germany and are marketed and distributed in the UK by SIG Design Technology, Mannheim House, Gelders Hall Road, Shepshed, Leicestershire LE12 9NH, tel: 01509 505714, fax: 01509 505475, e-mail: info@singleply.co.uk, website: www.singleply.co.uk

## 3 Delivery and site handling

3.1 The membranes are delivered on pallets to site in rolls wrapped in paper bearing the Certificate holder, batch number and the BBA logo incorporating the number of this Certificate.

3.2 Rolls should be stored horizontally in their original packaging on a clean, dry, level surface and stacked no more than three pallets high.

3.3 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 Rhenofol CV, CG and CGv.

## Design Considerations

### 4 General

4.1 Rhenofol CV, CG and CGv are satisfactory for use as waterproofing layers on flat roofs with limited access.

4.2 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 must be taken, such as additional protection to the membrane.

4.3 Flat roofs are defined for the purpose of this Certificate as those 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, including overall and local deflection, direction of falls, etc.

4.4 For ballasted installations, the roof slope must be less than 3° (fall of less than 1 in 19).

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

4.6 Insulation materials used in conjunction with the systems 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 limitations of, that Certificate.

4.7 The membranes can be adversely affected by contact with bituminous or coal tar products or polystyrene insulation boards. In these cases, the fleece-backed membrane, Rhenofol CGv, or a suitable separating layer must be used. Where doubt arises, the advice of the Certificate holder should be sought.

## 5 Practicability of installation

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

## 6 Weathertightness



6.1 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.

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

## 7 Properties in relation to fire



7.1 When tested, systems comprising Rhenofol CV 1.2 mm, 1.5 mm or 2.0 mm, mechanically fastened to a foil-faced polyisocyanurate (PIR) insulation on a loose-laid polyethylene vapour control layer on an OSB deck, will be unrestricted.

7.2 When tested, a system comprising an 18 mm thick OSB deck, a 1.7 mm bituminous vapour control layer, 100 mm PIR insulation and one layer of 1.8 mm Rhenofol CGv membrane bonded using Rhenofol CGv, will be unrestricted.

7.3 When tested, a system comprising a 20 mm thick flooring grade chipboard deck and one layer of glassfibre fleece (nominal weight  $120 \text{ g}\cdot\text{m}^{-2}$ , nominal thickness 1.2 mm), and one layer of Rhenofol CV mechanically fixed to the deck, will be unrestricted.

7.4 A roof waterproofed with Rhenofol CG and ballasted with a minimum depth of 50 mm of aggregate shall be deemed to be unrestricted.

7.5 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 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.

7.6 When tested in accordance with ENV 1187 : 2002, the systems described in sections 7.1 and 7.2 achieved a  $B_{\text{ROOF}}$  (t4) classification in accordance with EN 13501-5 : 2005.

## 8 Resistance to wind uplift

8.1 When installing a Rhenofol CV system in mechanically-fixed specifications, the resistance to wind uplift of the membrane is provided by mechanical fasteners secured to the deck, passing through the membrane. The number, design and position of these fixings will depend on a number of factors, including:

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

8.2 The number of fixings used should be established by reference to the wind uplift forces calculated in accordance with BS EN 1991-1-4 : 2005 and its UK National Annex on the basis of the maximum permissible loads.

8.3 When installing a Rhenofol CG system in a loose-laid and ballasted specification, the precise ballast requirements should be calculated in accordance with the relevant parts of BS EN 1991-1-4 : 2005 and its UK National Annex, but should not be below a minimum thickness of 50 mm. In areas of high wind exposure, the use of paving slabs on suitable supports should be considered and the advice of the Certificate holder should be sought.

8.4 When installing a Rhenofol CGv system in a bonded specification, the resistance to wind uplift will normally be limited by the nature, condition and cohesive strength of the substrate. Tests indicate that the Rhenofol CGv membrane bonded with Rhenofol CGv adhesive to a concrete substrate will resist the effects of wind suction, thermal cycling or minor structural movements likely to occur in practice.

8.5 For other substrates, the advice of the Certificate holder should be sought and acceptable adhesion confirmed by test if necessary.

8.6 When bonding to insulation boards, the resistance to wind uplift may 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.

## 9 Resistance to foot traffic

9.1 The systems can accept, without damage, the limited foot traffic and light concentrated loads associated with installation and maintenance. Reasonable care should be taken, however, to avoid puncture by sharp objects or concentrated loads.

9.2 Where regular traffic is envisaged, such as for maintenance of lift equipment, a walkway must be provided using concrete slabs supported on suitable bearing pads, or a protective layer (some types of bearing pads, in addition, will require the use of a protective sheet laid between the roof covering and the pads). Alternatively, Rhenofol Walkway Slab or FDT Rubber Slab bonded onto the Rhenofol membrane can be installed to provide the appropriate mechanical protection.

## 10 Maintenance



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

10.2 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 15).

## 11 Durability



11.1 Accelerated weathering tests confirm that satisfactory retention of physical properties is achieved. The available evidence indicates that the systems should have a life of at least 35 years.

11.2 The BBA has examined existing installations in Germany which have been in service since 1982. 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.

11.3 Where an extended service life is required, the Certificate holder or his agent must carry out inspections at the beginning and end of installation and, if required, during it, to ensure that both the necessary preparatory work and the installation have 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.

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

## 12 Reuse and recyclability

The product contains PVC and glass or polyester, which can be recycled.

# Installation

## 13 General

13.1 Installation of Rhenofol CV, CG and CGv membranes must be in strict accordance with the Certificate holder's fixing instructions and should only be carried out by trained installers, details of which are available from the Certificate holder.

13.2 Surfaces should be clean, dry, and free from sharp projections such as nail heads, concrete nibs.

13.3 In all cases, a vapour control layer should be used directly over the deck.

13.4 The membranes should be laid in conditions normal to roofing work. To prevent the entrapment of moisture under the membranes they must not be laid in wet or damp weather conditions, or at temperatures below 5°C.

13.5 Thermal insulation must be dimensionally stable. It can be rigid foam or mineral fibre and should be capable of supporting imposed loads during the installation and service without undue deflection. For mechanically-fixed applications, the boards should have a high resistance to point loading. The Certificate holder must be consulted for suitable insulation materials.

13.6 The Rhenofol CV and CG membranes must not be laid directly onto expanded polystyrene or on timber substrates impregnated with substances containing solvents or oil (eg oil-based preservatives). A separating layer must be used in these cases.

## 14 Procedure

### Mechanically-fixed Rhenofol CV systems

14.1 The membrane is laid flat onto the substrate without folds or ripples, and fixed to the deck by means of fixing elements attached by screws through the membrane.

14.2 The position and type of fixing elements with the number of fixing screws for each element must be in accordance with the fixing specifications provided by the Certificate holder.

14.3 The fixing elements are normally weatherproofed by the 100 mm overlap of the adjacent sheet, welded over the final 50 mm. The fixing elements may also be weatherproofed by hot-air or solvent welding 150 mm wide strips of the membrane over the fixing and to the main membrane.

14.4 The membrane must be fixed at all perimeters, penetrations and valleys with a deviation of more than 3° from the horizontal, by welding onto Rhenofol coated metal sheet. The Certificate holder should be consulted for suitable fixings and detail specifications.

#### Loose-laid and ballasted Rhenofol CG systems

14.5 The slope of the roof should not exceed 3° (approximate fall of 1:19) to minimise the loss of the ballast.

14.6 The membrane must be fixed at roof penetrations and at roof perimeters, and made wind-tight to prevent the rapid intrusion of air under the membrane. The Certificate holder should be consulted for suitable fixings and detail specifications.

14.7 Lap joints are made by overlapping adjacent sheets by 50 mm and jointing using solvent or hot air in accordance with the Certificate holder's instructions.

14.8 Prior to the application of the ballast, a protection layer consisting of at least 0.2 mm thick polyethylene should be laid. The Certificate holder should be consulted for suitable specifications.

14.9 Ballast consisting of natural uncrushed stone (20/40 mm) should immediately be applied to provide a minimum 50 mm thick layer.

14.10 Alternatively, paving slabs may be used, placed in a bed of fine gravel. In this case the Certificate holder should be consulted for information on suitable protection layers.

#### Bonded Rhenofol CGv systems

14.11 Rhenofol CGv adhesive should be applied to the clean and dry substrate at a coverage rate in accordance with Table 3 using the FDT application trolley. In places hard to reach with the bonding trolley, the adhesive can be applied manually.

Table 3 Adhesive application rates

Roof zone	Application rate at roof height (g·m <sup>-2</sup> )	
	<8 m	>8 m to <20 m
Edges/corners	250	350
Central area	180	250

14.12 Longitudinal lap joints are formed by overlapping the two adjacent sheets by 60 mm, to ensure that the fleece backing is continuous and forms a separation layer between bituminous or other non-compatible substrates and the membrane. A 50 mm wide joint is made by solvent or hot-air welding in accordance with the Certificate holder's instructions.

14.13 Owing to the fleece backing, it is not possible to weld transverse laps together directly. These should be formed by overlapping the membrane by 50 mm and welding a 100 mm wide strip of Rhenofol C, CG or CV centrally over the lap using hot air or Rhenofol solvent welding agent.

14.14 The Certificate holder should be consulted for suitable fixings and detail specifications for perimeter, upstand and penetration details.

## 15 Repair

In the event of damage, repairs to Rhenofol CV, CG and CGv should be carried out by applying a patch of Rhenofol C, CV or CG membrane extending at least 50 mm beyond the defect. The joint should be cleaned back to unweathered material and solvent or hot-air welded and finally sealed using Rhenofol paste.

## Technical Investigations

### 16 Tests

16.1 An assessment was made of data in relation to:

- dimensional stability — directional
- tear strength — directional
  - reinforcement
  - PVC (unreinforced)
- elongation — directional
  - reinforcement
  - PVC (unreinforced)
- apparent density
- water vapour permeability
- water vapour resistance
- ash content
- resistance to water pressure

- static indentation
  - hard substrate
  - soft substrate
- dynamic indentation
  - hard substrate
  - soft substrate
- low temperature flexibility
- tensile strength
  - unaged
  - heat aged
  - UV aged
  - SO<sub>2</sub> aged
  - alkali aged
  - brine aged
- elongation
  - unaged
  - heat aged
  - UV aged
  - SO<sub>2</sub> aged
  - alkali aged
  - brine aged
- modulus of elasticity
  - unaged
  - heat aged.

16.2 Test data relating to Rhenofol CGv on the following properties were also examined:

- resistance to peel from substrate
  - control
  - heat aged
- resistance to cyclic movement.

16.3 Test data relating to Rhenofol CV on the following properties were also examined:

- joint peel strength
- joint shear strength
- wind uplift.

16.4 Data from tests relating to Rhenofol CG (1.2 mm) and Rhenofol CGv on the following properties were also examined:

- thickness
- weight per unit area
- tensile strength and elongation
- flatness
- resistance to static loading
- resistance to impact.

## 17 Investigations

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

17.2 The manufacturing process was evaluated, including the methods adopted for quality control, and details were obtained of the quality and composition of the materials used.

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

17.4 An assessment of the systems' durability was made based on the inspection and testing of material from existing installations.

## Bibliography

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

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

ENV 1187 : 2002 *Test methods for external fire exposure to roofs*

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

## Conditions of Certification

### 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.