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BBA APPROVAL INSPECTION TESTING CERTIFICATION
TECHNICAL APPROVALS FOR CONSTRUCTION

Agrément Certificate
04/4109
Product Sheet 1

POLISYSTEM MEMBRANES

FORTUNE SINGLE-PLY ROOF WATERPROOFING MEMBRANES

PRODUCT SCOPE AND SUMMARY OF CERTIFICATE

This Certificate relates to Fortune Single-Ply Roof Waterproofing Membranes for use in fully adhered, mechanically fastened, loose-laid and ballasted specifications on flat and pitched roofs with limited access and for use in roof garden or green roof applications.

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 membranes will resist the passage of moisture into the building (see section 5).

Properties in relation to fire — the membranes will enable a roof to be unrestricted under the Building Regulations (see the *Regulations* section and section 6).

Resistance to wind uplift — the systems will resist the effects of any likely wind suction acting on the roof (see section 7).

Resistance to foot traffic — the membranes will accept the limited foot traffic and loads associated with the installation and maintenance (see section 8).

Resistance to penetration of roots — the systems will resist the penetration of roots (see section 9).

Durability — under normal service conditions the membranes will provide a durable roof waterproofing with a service life in excess of 20 years (see section 11).

The BBA has awarded this Agrément Certificate to the company named above for the products described herein. The 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 First issue: 10 August 2011
Originally certificated on 24 May 2004

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

Regulations

In the opinion of the BBA, Fortune Single-Ply Roof Waterproofing Membranes, 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 2010 (England and Wales)

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 6.1 to 6.8 of this Certificate.
Requirement:	C2(b)	Resistance to moisture
Comment:		The membranes, including joints, will enable a roof to meet this Requirement. See section 5.1 of this Certificate.
Requirement:	Regulation 7	Materials and workmanship
Comment:		The membranes are acceptable. See section 11 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 membranes satisfies the requirements of this Regulation. See sections 10.1 to 10.4, 11 and the *Installation* part of this Certificate.
Regulation:	9	Building standards – construction
Standard:	2.8	Spread from neighbouring buildings
Comment:		The membranes when applied to suitable substrates, are classified as having low vulnerability and will enable a roof to be unrestricted under this Standard, with reference to clause 2.8.1[(1)(2)] of this Standard. See sections 6.1 to 6.5, 6.7 and 6.8 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 5.1 of this Certificate.
Standard:	7.1(a)	Statement of sustainability
Comment:		The membranes 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 — conversions
Comment:		Comments made in relation to the membranes 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) 2000 (as amended)

Regulation:	B2	Fitness of materials and workmanship
Comment:		The membranes are acceptable. See section 11 and the *Installation* part of this Certificate.
Regulation:	B3(2)	Suitability of certain materials
Comment:		The membranes are acceptable. See sections 10.1 to 10.4 of this Certificate.
Regulation:	C4(b)	Resistance to ground moisture and weather
Comment:		The membranes, including joints, will enable a roof to meet the requirements of this Regulation. See section 5.1 of this Certificate.
Regulation:	E5(b)	External fire spread
Comment:		On suitable substructures the use of the membranes will enable a roof to be unrestricted under the requirements of this Regulation. See sections 6.1 to 6.8 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 2011

NHBC accepts the use of Fortune Single-Ply Roof Waterproofing Membranes, when installed and used in accordance with this Certificate, in relation to *NHBC Standards*, Chapter 7.1 *Flat roofs and balconies* and 7.2 *Pitched roofs*.

General

Fortune Single-Ply Roof Waterproofing Membranes are manufactured by Polisystem SPA, and marketed in the UK by Polisystem UK Ltd, 24 Warwick Street, Rugby, Warwickshire CV21 3DW, tel: 01788 555941 fax: 01788 555942 e-mail: sales@polisystem.co.uk website: www.polisystem.co.uk

Technical Specification

1 Description

1.1 Fortune Single-Ply Roof Waterproofing Membranes are manufactured from flexible polyolefin (FPO) and are available in four grades:

- Fortune GS — reinforced with 75 g·m^{-2} glass net. The top layer is grey and the underside is black and is used in mechanically-fastened and protected membrane system, including green roofs and roof gardens
- Fortune FG TNT — reinforced with 50 g·m^{-2} glassfibre and with polypropylene fleece backing for use in fully-adhered, loose-laid and ballasted and protected membrane systems including green roofs and roof gardens. The top layer is grey and the underside is black
- Fortune – unreinforced membrane for use in ballasted, mechanically fastened and roof garden/green roof applications. The top layer is grey and the underside black
- Fortune TNT – unreinforced membrane with a polypropylene fleece backing for use in ballasted, fully-bonded and roof garden/green roof applications. The top layer is grey and the underside black.

1.2 The membranes have the nominal thickness and weight characteristics given in Table 1.

Table 1 Nominal characteristics — units

Fortune GS				
Thickness (mm)	1.2	1.5	1.8	2.0
Mass per unit area (kg·m^{-2})	1.08	1.35	1.62	1.80
Roll weight (1.35 m x 14.82 m) (kg)	21.6	27.0	32.4	36.0
Roll weight (1.5 m x 15 m) (kg)	24.3	30.4	36.5	40.5
Fortune FG TNT				
Thickness (mm)	1.2	1.5	1.8	2.0
Mass per unit area (kg·m^{-2})	1.18	1.45	1.72	1.90
Roll weight (1.35 m x 14.82 m) (kg)	23.6	29.0	34.4	38.0
Fortune				
Thickness (mm)	1.2	1.5	1.8	2.0
Mass per unit area (kg·m^{-2})	1.08	1.35	1.62	1.80
Roll weight (1.5 m x 15 m) (kg)	24.3	30.4	36.5	40.5
Fortune TNT				
Thickness (mm)	1.2	1.5	1.8	2.0
Mass per unit area (kg·m^{-2})	1.18	1.45	1.72	1.90
Roll weight (1.5 m x 15 m) (kg)	26.6	32.6	38.7	42.8

1.3 Ancillary items for use with the membranes include:

- Fortune Vapour — a vapour control layer
- Fortune Membrane Adhesive – for fully adhered systems
- Fortune Iron — galvanized steel bars for mechanical fixing of the membrane
- Fortune Contour — galvanized steel bars for mechanical fixing at vertical upstands
- Fortune Reservoir/Drainage layer — polypropylene membrane reinforced with a glass fleece.

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

2 Delivery and site handling

2.1 Membranes are delivered to site as rolls on timber pallets, packaged in polythene film bearing self-adhesive tape with the manufacturer's name, product identification, size and batch number/manufacturing date.

2.2 Rolls should be stored in a cool, dry area on a clean, level surface, and kept under cover. Rolls should only be unwrapped from packaging at time of installation.

2.3 Fortune Membrane Adhesive is classified as 'harmful' and 'highly flammable' under *The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009* (CHIP4)/*Classification, Labelling and Packaging of Substances and Mixtures (CLP Regulation) 2009*. It should be stored in a well-ventilated area in accordance with *The Dangerous Substances and Explosives Atmospheres Regulations 2002*.

Assessment and Technical Investigations

The following is a summary of the assessment and technical investigations carried out on Fortune Single-Ply Roof Waterproofing Membranes.

Design Considerations

3 General

3.1 Fortune Single-Ply Roof Waterproofing Membranes are satisfactory for use as waterproofing on pitched and flat roofs with limited access in:

- mechanically-fastened systems
- fully-adhered
- loose-laid and ballasted
- protected membrane systems
- flat roofs in green roof (extensive planting) specifications
- flat roofs in roof garden (intensive planting) specifications.

3.2 Limited access roofs are defined for the purpose of this Certificate as those roofs subjected only to pedestrian traffic for maintenance of the roof covering and cleaning of gutters, etc. Where traffic in excess of this is envisaged, additional protection to the membrane, must be provided (see section 8).

3.3 Flat roofs are defined for the purpose of this Certificate as those roofs 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 of 1:6.

3.4 Decks to which the membranes are to be applied must comply with the relevant requirements of BS 6229 : 2003, BS 8217 : 2005 and, where appropriate, *NHBC Standards 2011*, Chapter 7.1.

3.5 Insulation materials to be used in conjunction with the membranes must be in accordance with the Certificate holder's and be either:

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

3.6 Recommendations for the design of green roof and roof garden specifications are available within the latest edition of *Guidelines to Green Roofing*, The Green Roof Organisation.

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

3.8 Imposed loads, dead loading and wind loads for green roof and roof garden 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 National Annexes.

3.9 The drainage system for the green roof or roof garden must be correctly designed, and provision is made for access for maintenance purposes. Dead loads for green roof and roof gardens can increase if the drains become partially or completely blocked causing water-logging of the drainage layer.

4 Practicability of installation

Installation of the system must be carried out by trained and approved contractors.

5 Weathertightness

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

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

6 Properties in relation to fire

6.1 When tested in accordance with BS 476-3 : 1958, a system comprising 0.7 mm profiled steel deck, Fortune Vapour, 85 mm thick glassfibre-faced polyurethane insulation and mechanically fixed 1.5 mm Fortune GS achieved an EXT.F.AB rating.

6.2 When tested to BS 476-3 : 1958, a system comprising 0.7 mm profiled steel deck, Fortune Vapour, 85 mm thick polyurethane insulation and 1.5 mm Fortune FG TNT, fully adhered using Fortune Membrane Adhesive, achieved an EXT.F.AB rating.

6.3 When used in a loose-laid and ballasted specification including a minimum surface finish of 50 mm of aggregate, the membranes shall be deemed to satisfy BS 476-3 : 1958, designation EXT.F.AA.

6.4 When tested in accordance with BS 476-3 : 2004, a system comprising 18 mm thick OSB deck, polyethylene vapour control layer, 120 mm thick insulation foam and mechanically fixed 1.2 mm Fortune GS achieved an EXT.F.AB rating.

6.5 When tested to BS 476-3 : 2004, a system comprising 18 mm thick OSB deck, polyethylene vapour control layer, 120 mm thick insulation foam and 1.2 mm Fortune TNT, fully adhered using Fortune Membrane Adhesive achieved an EXT.F.AC rating.

6.6 Only when used on flat roofs with one of the surface finishes defined in Part iii of Table A5 of Appendix A of The Building Regulations (England and Wales), or Technical Booklet E, Table 4.6, Part IV of The Building Regulations (Northern Ireland) (and listed below), the roof is deemed to be of designation AA.

6.7 In the opinion of the BBA, when used in irrigated roof gardens or green roofs, the use of the membrane will be unrestricted under the national Requirements:

England and Wales — Requirement B4(2)
Scotland — Mandatory Standard 2.8, Clause 2.8.1
Northern Ireland — Regulation E5(b)

6.8 The designation of other specifications (eg on combustible substrates) should be confirmed by:
England and Wales — Test or assessment in accordance with Approved Document B, Appendix A, Clause A1.
Scotland — Tests conform to Mandatory Standard 2.8, clause 2.8.1, and Annex 2.C
Northern Ireland — Test or assessment by a UKAS accredited laboratory, or an independent consultant with appropriate experience.

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

7 Resistance to wind uplift

7.1 The resistance to wind uplift of a mechanically fixed waterproofing layer is provided by the 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
- the pull-out strength of fasteners
- tensile properties of the membrane
- appropriate calculation of safety factors.

7.2 The wind uplift forces are calculated in accordance with BS EN 1991-1-4 : 2005 and the UK National Annex. On this basis, the number of fixings required should be established using a maximum permissible load of 0.6 kN per fixing.

7.3 The adhesion of the bonded systems is sufficient to resist the effects of wind suction, thermal cycling or other minor structural movements likely to occur in service.

7.4 Where the membranes are 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 selecting a suitable insulation material.

7.5 The ballast requirements for loose-laid systems should be calculated in accordance with the relevant parts of BS EN 1991-1-4 : 2005 and the UK National Annex. The membrane 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.

7.6 The soil used in intensive plantings must not be of the type that will be removed, or become delocalised due to wind scour experienced in service.

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

8 Resistance to foot traffic

The membranes can accept the limited, foot traffic and light concentrated loads associated with the installation and maintenance operations. Reasonable care should be taken to avoid puncture by sharp objects or concentrated loads. On limited access roofs, where traffic in excess of this is envisaged, such as maintenance of lift equipment, a walkway should be provided, for example using concrete slabs supported on bearing pads.

9 Resistance to penetration by roots

Results of root resistance tests on the membranes indicate that they are suitable for use as a root barrier.

10 Maintenance

General

10.1 Roofs must be the subject of annual inspections and maintenance to ensure continued performance.

10.2 Maintenance should include checks and operations to ensure the following where applicable:

- adequate ballast in place and evenly distributed over the membrane
- protection layers are in good condition
- exposed membrane is free from the build-up of silt and other debris and drainage channels are clear.

10.3 Where damage has occurred then it should be repaired in accordance with section 15 and the Certificate holder's instructions.

Roof Gardens

10.4 Roofs must be the subject of regular inspections particularly in autumn after leaf fall and in the spring to ensure vegetation and other debris are cleared from the roof and drainage outlets cleared (see section 3.7). Guidance is available within the latest edition of *Guidelines to Green Roofing*.

11 Durability

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

Installation

12 General

12.1 Installation of Fortune Single-Ply Roof Waterproofing Membranes must be carried out by trained and approved installers working in accordance with the relevant Clauses of BS 8000-4 : 1989 and the Certificate holder's instructions.

12.2 Substrates to which the membranes are applied must be sound, dry, clean and free from sharp projections such as nail heads and concrete nibs. When used over a rough substrate, a suitable protection layer must be placed over the substrate.

12.3 Installation should not be carried out during inclement weather (eg rain, fog, snow). When the temperature is below 5°C suitable precautions against surface condensation must be taken.

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

13 Procedure

Fully-adhered system

13.1 The fleece-backed membrane is unrolled onto the substrate, without ripples, with a 60 mm overlap.

13.2 One half of the membrane is folded back and adhesive applied to the membrane and substrate at a rate of between 0.15 kg·m^{-2} and 0.40 kg·m^{-2}. The adhesive should be allowed to dry for between 5 and 10 minutes (dependent on weather conditions) until tacky, prior to membrane being folded back onto the substrate.

13.3 The process given in section 13.2 is repeated for the other half of the membrane.

Mechanically-fastened system

13.4 The membrane is unrolled onto the substrate, without ripples, with a minimum overlap of 60 mm plus the width of the washer.

13.5 The membrane is secured within the lap area using fasteners and seam plates. The maximum distance between each fastening assembly must be 300 mm and the minimum distance between the plates and sheet edge must be 15 mm.

Loose-laid and ballasted roof systems

13.6 The membrane is unrolled onto the substrate, without ripples, with a 60 mm overlap, and mechanically fastened at perimeters.

13.7 When used in a loose-laid and ballasted system a suitable protection layer must be laid over the membrane prior to the application of the ballast. When used in protected roof systems a suitable filter layer must be laid over the insulation.

13.8 The membrane must be covered by at least a 50 mm minimum thick layer of washed, well-rounded gravel (between 16 mm and 32 mm in diameter). In areas of high-wind exposure, additional gravel may be required and/or the gravel may be bonded at the edges for a distance of one metre. Alternatively, concrete slabs may be used (eg pads).

Green roofs and roof gardens

13.9 In green roof and roof garden specifications, subsequent layers such as separation layers, drainage layers and growing medium are installed in accordance with the Certificate holder's installation instructions. Guidance is also available within the latest edition of *Guidelines to Green Roofing*.

14 Jointing and flashing procedure

Hot-air welding

14.1 All joints should be sealed, wherever possible by automatic rather than by hand-held hot-air gun. The temperature should be set in accordance with the Certificate holder's instructions.

14.2 The welding area must be dry and clean. If the membrane in the welding area is oxidised due to prolonged outdoor exposure it must be cleaned in the prescribed manner.

14.3 The welded width of the joint must be a minimum of 30 mm. Care should be taken that over heating of the membrane does not occur, as this will result in scorching and carbonisation of the membrane.

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

Flashing

14.5 Flashing and detailing should be formed in accordance with the Certificate holder's instructions.

15 Repair

In the event of accidental 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

16 Tests

16.1 Results of test data were assessed by the BBA and are summarised in Tables 2 and 3.

16.2 Tests were carried out to determine the following properties:

- thickness
- width
- weight per unit area
- flatness and trueness
- ash content.

Table 2 Physical properties directional

Test (units)	Mean results				Method
	Fortune GS[1]	Fortune FG TNT[2]	Fortune[1]	Fortune TNT[1]	
Tensile strength (N per 50 mm)					EN 12311–2
unaged					(Specimen A)
longitudinal	1145	572	1297	–	
transverse	813	498	1121	–	
heat aged[3]					
longitudinal	1129	–	1244	–	
transverse	753	–	1174	–	
Elongation at maximum force (%)					EN 12311-2
unaged					(Specimen A)
longitudinal	4.5[4]	–	782	–	
transverse	4.5[4]	–	802	–	
heat aged[3]					
longitudinal	5.0[4]	–	718	–	
transverse	3.8[4]	–	777	–	
Nail tear (N)					MOAT 67: 4.3.11
+18°C					
longitudinal	607	836	627	–	
transverse	746	732	704	–	
+40°C					
longitudinal	544	560	–	–	
transverse	530	496	–	–	
–10°C					
longitudinal	821	1104	–	–	
transverse	1035	1110	–	–	
Dimensional stability (%)					EN 1107–2
longitudinal	–0.1	0.0	–0.8	–0.5	
transverse	+0.1	0.0	0.0	+0.1	

(1) All tests carried out on 1.2 mm membranes.
(2) All tests carried out on 1.5 mm membranes.
(3) Heat aged 84 days at 80°C.
(4) To failure of reinforcement.
— not tested.

Table 3 Physical properties

Test (units)	Mean results				Method
	Fortune GS[1]	Fortune FG TNT[2]	Fortune[1]	Fortune TNT[1]	
Water vapour permeability ($g \cdot m^{-2} \cdot day^{-1}$)	0.20	–	0.17	–	BS 3177 (25°C/75% RH)
Water vapour resistance ($MN \cdot s \cdot g^{-1}$)	1031	–	1244	–	BS 3177 (25°C/75% RH)
Low temperature folding					EN 495-5
unaged	–40°C	–	–	–	
UV aged[3]	–40°C	–	–	–	
heat aged[4]	–40°C	–	–	–	
Static indentation (kg)					EN 12730
concrete	L_{20}	–	L_{25}	–	
EPS	L_{25}	–	L_{15}	–	
Dynamic indentation (kg)					EN 12691
EPS	I_{15}	–	I_{15}	–	
perlite	I_{15}	–	I_{15}	–	
Water absorption (%)	1.5	–	0.03	–	MOAT 67 : 4.3.13
Tensile strength of joints (N per 50 mm) (1.5 mm thickness)					EN 12317-2
control	446	–			
after heat ageing[4]	452	–			
Resistance to peel (N per 50 mm)					MOAT 67 : 4.3.3
control	–	152	–	98	
after heat ageing[4]	–	156	–	–	
Resistance to wind uplift					MOAT 67 : 4.3.2
fully adhered (kPa)	–	6			
mechanically fastened (N)[5]					
load per fixing	1000	–	1200		
corrected load per fixing	600	–	700		

(1) All tests carried out on 1.2 mm membranes.
(2) All tests carried out on 1.5 mm membranes.
(3) UV aged using 4500 $MJ \cdot m^{-2}$ UVA.
(4) Heat aged 28 days at 80°C.
(5) Using 250 micron grade vapour control layer, over a profiled 0.7 mm thick, galvanized steel decking with Kingspan Insulation boards, mechanically fastened to the deck.
— Not tested.

17 Investigations

17.1 Existing data on fire performance of the membranes to BS 476-3 : 1958 and 2004 and resistance to root penetration were assessed.

17.2 The manufacturing processes were examined, including methods of quality control. Details were also obtained of the quality and composition of the materials used.

Bibliography

BS 476-3 : 1958 *Fire tests on building materials and structures — External fire exposure roof test*
BS 476-3 : 2004 *Fire tests on building materials and structures — Classification and method of test for external fire exposure to roofs*

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 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 495-5 : 2000 *Flexible sheets for waterproofing — Determination of foldability at low temperature — Plastic and rubber sheet for roof waterproofing*

EN 1107-2 : 2001 *Flexible sheets for waterproofing — Determination of dimensional stability — Plastic and rubber sheet for roof waterproofing*

EN 12311-2 : 2000 *Flexible sheets for waterproofing — Determination of tensile properties — Plastic and rubber sheets for roof waterproofing*
EN 12317-2 : 2000 *Flexible sheets for waterproofing — Determination of shear resistance of joints — Plastic and rubber sheets for roof waterproofing*

EN 12691 : 2001 *Flexible sheets for waterproofing — Bitumen, plastic and rubber sheets for roof waterproofing — Determination of resistance to impact*

EN 12730 : 2001 *Flexible sheets for waterproofing — Bitumen, plastic and rubber sheets for roof waterproofing — Determination of resistance to static loading*

MOAT No 67 : 2001 *UEAtc Technical Guide for the assessment of non-reinforced, reinforced and/or Backed Roof Waterproofing Systems made of FPO*

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
- individual 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.

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.

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