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Agrément Certificate
12/4889
Product Sheet 1

POLYGLASS ROOF WATERPROOFING SYSTEMS

MAPEPLAN T ROOF WATERPROOFING MEMBRANES

PRODUCT SCOPE AND SUMMARY OF CERTIFICATE

This Certificate relates to Mapeplan T Roof Waterproofing Membranes, thermoplastic polyolefin (TPO/FPO) membranes for use in mechanically fastened, fully adhered, loose-laid and ballasted specifications on flat and pitched roofs with limited access and for use in roof gardens and 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 6).

Behaviour 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 upon the roof (see section 8).

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

Resistance to penetration of roots — the systems will resist the penetration of roots (see section 10).

Durability — under normal service conditions the membranes will provide a durable roof waterproofing with a service life in excess of 25 years (see section 12).

The BBA has awarded this Agrément 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

Simon Wroe
Head of Approvals — Materials

Greg Cooper
Chief Executive

Date of First issue: 25 January 2012

The BBA is a UKAS accredited certification body — Number 113. The schedule of the current scope of accreditation for product certification is available in pdf format via the UKAS link on the BBA website at www.bbacerts.co.uk

Readers are advised to check the validity and latest issue number of this Agrément Certificate by either referring to the BBA website or contacting the BBA direct.

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Regulations

In the opinion of the BBA, Mapeplan T 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 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)

Requirement: B4(2)	External fire spread
Comment:	On a suitable substructure, the use of the membranes will enable a roof to be unrestricted under this Requirement. See sections 7.1 to 7.5 of this Certificate.
Requirement: C2(b)	Resistance to moisture
Comment:	The membranes, including joints, will enable a roof to meet this Requirement. See section 6.1 of this Certificate.
Requirement: Regulation 7	Materials and workmanship
Comment:	The membranes are acceptable. See section 12 and the <i>Installation</i> 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 11.1 to 11.4, 12 and the <i>Installation</i> part of this Certificate.
Regulation: 9	Building standards – construction
Standard: 2.8	Spread from neighbouring buildings
Comment:	The membranes when applied to a suitable substructure, are regarded as having low vulnerability under clause 2.8.1 ⁽¹⁾⁽²⁾ of this Standard. See sections 7.1 to 7.5 of this Certificate.
Standard: 3.10	Precipitation
Comment:	The use of the membranes, including joints will enable a roof to meet 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 – 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 12 and the <i>Installation</i> part of this Certificate.
Regulation: B3(2)	Suitability of certain materials
Comment:	The membranes are acceptable. See sections 11.1 to 11.4 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 6.1 of this Certificate.
Regulation: E5(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 sections 7.1 to 7.5 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 3 *Delivery and site handling* (3.3) of this Certificate.

Additional Information

NHBC Standards 2011

NHBC accepts the use of Mapeplan T 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*.

CE marking

The Certificate holder has taken the responsibility of CE marking the products in association with harmonised standard EN 13956 : 2005. An asterisk (*) appearing in this Certificate indicates that data shown is given in the manufacturer's Declaration of Performance.

Technical Specification

1 Description

1.1 Mapeplan T Roof Waterproofing Membranes are FPO/TPO reinforced single-ply roofing membranes, available as follows:

- Mapeplan TM — reinforced with 80 g·m⁻² polyester net. The top layer is smart white and the underside is black⁽¹⁾ and is used in mechanically-fastened applications
- Mapeplan TMf — reinforced with 80 g·m⁻² polyester net. The membrane has a 300 g·m⁻² non-woven fleece on the underside. The top layer is smart white and the underside is black⁽¹⁾ and is used in mechanically-fastened applications over incompatible or rough surfaces
- Mapeplan TB — reinforced with 50 g·m⁻² glass mat. The top layer is smart white and the underside is black⁽¹⁾ and is used for loose-laid, ballasted, and roof gardens applications
- Mapeplan TAf — reinforced with 50 g·m⁻² glass mat. The membrane has a 300 g·m⁻² non-woven fleece on the underside. The top layer is smart white and the underside is black⁽¹⁾ and is used in fully-bonded applications.

(1) The membranes are also available in lead grey as standard. Other colours are available upon request.

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

Table 1 Characteristics

Characteristic (units)	Mapeplan T Membranes						
	TM 12	TM 15	TMf 12	TB 12	TB 15	TAf 12	TAf 15
Thickness* (mm)	1.2	1.5	1.2	1.2	1.5	1.2	1.5
Mass per unit* area (g·m ⁻²)	1200	1500	1200	1200	1500	1200	1500
Roll length* (m)	10 and 25	10 and 20	10 and 20	10 and 25	10 and 20	10 and 20	10 and 20
Roll width* (m)	2.1 and 1.05	2.1	2.1	2.1 and 1.05	2.1 and 1.05	2.1	2.1
Tensile strength* (N·mm ⁻²) and elongation* (%)	≥1100 ≥15	≥1100 ≥15	≥1100 ≥15	≥9 ≥550	≥9 ≥550	≥650 ≥65	≥650 ≥65
Tear resistance* (N)	≥200	≥200	≥200	≥150	≥150	≥200	≥200
Dimensional stability* (%)	≤0.3	≤0.3	≤0.3	≤0.2	≤0.2	≤0.2	≤0.2
Foldability at low temperatures* (°C)	≤ -35	≤ -35	≤ -35	≤ -35	≤ -35	≤ -35	≤ -35
Watertightness* (10 kPa)	Pass	Pass	Pass	Pass	Pass	Pass	Pass

1.3 Ancillary items for use with the membranes include:

- Mapeplan ADS 100 polyurethane adhesive — for use with fleece-backed membranes for fully bonded applications
- Mapeplan ADS 300 contact glue — for use with the membranes at upstands and flashings
- Mapeplan T Seam Prep — cleaner for cleaning
- Mapeplan Metal Bar — pre-punched bar for use in mechanically fastened systems
- Mapeplan standing seam profile
- Mapeplan T disks, plates and fasteners — for use in mechanically fastened applications.

1.4 Ancillary items outside the scope of this Certificate include:

- Mapeplan TD — unreinforced membrane for use at upstands and flashings
- Mapeplan VB PE — a polyethylene vapour control layer
- Mapeplan T Walkway a protection synthetic membrane in TPO/FPO with a non-slip surface
- Polydren — separation and protective layers in non-woven polyester or polypropylene.

2 Manufacture

2.1 Mapeplan T membranes are manufactured by extrusion of a thermoplastic/flexible polyolefin incorporating either a polyester net or glass mat.

2.2 To ensure product quality is consistently maintained to the required specification, 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 as part of a surveillance process to ensure that standards are maintained and that the product or system remains as Certificated.

2.3 The product is manufactured by Polyglass SpA, Italy and marketed in the UK by the Certificate holder.

2.4 The management system of Polyglass SpA has been assessed and registered as meeting the requirements of BS EN ISO 9001 : 2008 by Certiquality (Certificate No 15961).

3 Delivery and site handling

3.1 Rolls are delivered to site packed on pallets wrapped in polythene. Labels are attached to each roll bearing the product name, manufacturer's address, number of Certificate of Factory Production Control, CE mark and the BBA identification mark including the number of this Certificate.

3.2 The rolls should be stored horizontally on a smooth, clean, dry surface under cover and protected from sunlight.

3.3 The polyurethane adhesives and bitumen primer are classified under *The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (CHIP4)/Classification, Labelling and Packaging of Substances and Mixtures (CLP Regulation) 2009* are given in Table 2. These products bear the appropriate hazard warning.

Table 2 Flashpoint and hazard classification

Materials	Flashpoint (°C)	Classification
Mapeplan T Cleaner	4-23	Harmful
Mapeplan ADS 100	N/A	Harmful
Mapeplan ADS 300	-18	Harmful

Assessment and Technical Investigations

The following is a summary of the assessment and technical investigations carried out on Mapeplan T Roof Waterproofing Membranes.

Design Considerations

4 Use

4.1 Mapeplan T Roof Waterproofing Membranes are satisfactory for use as waterproofing on pitched and flat roofs with limited access in:

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

4.2 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 9).

4.3 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 1:6.

4.4 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 2011*, Chapter 7.1 *Flat roofs and balconies*.

4.5 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 be used in accordance with, and within the scope of that Certificate.

4.6 Contact with bituminous, coal tar and oil-based products must be avoided as the membrane is not compatible with lower grades of bitumen. If contact with such products is likely, a separating layer must be interposed before installing the waterproofing sheet. Where doubt arises, the advice of the Certificate holder should be sought.

4.7 Recommendations for the design of green roof and roof garden specifications are available within *The GRO Green Roof Code — Green Roof Code of Best Practice for the UK 2011*.

4.8 For green 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.

4.9 Imposed loads, dead loading and wind loads 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 UK National Annexes respectively.

4.10 The drainage system for green roofs or roof gardens must be correctly designed, and provision is 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 membranes must be carried out by trained and approved contractors.

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:

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).

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

7 Behaviour in relation to fire



7.1 When tested in accordance with BS 476-3 : 2004, a system comprising 18 mm OSB 3 deck, 50 mm thick mineral fibre insulation board and mechanically fixed 1.2 mm Mapeplan TM 1.2 achieved an EXT.F.AA rating.

7.2 When tested to BS 476-3 : 2004, a system comprising 18 mm OSB 3 deck, 50 mm thick glass-tissue faced polyurethane insulation and 1.2 mm Mapeplan TAF 12 membrane, fully adhered using Mapeplan ADS 100 polyurethane adhesive, achieved an EXT.F.AB rating.

7.3 When used in a loose-laid and ballasted specification including a minimum surface finish of 50 mm of aggregate, the membranes are deemed to satisfy BS 476-3 : 2004, designation EXT.F.AA.

7.4 In the opinion of the BBA, when used in irrigated roof gardens or green roofs, the use of the membranes 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).

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 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.

7.6 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 the overall fire-rating of the roof is not compromised.

7.7 The products are classified as Class E* in accordance with EN 13501-1 : 2007.

8 Resistance to wind uplift

8.1 The resistance to wind uplift of a mechanically-fastened 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
- 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 the UK National Annex.

8.3 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.

8.4 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.

8.5 The ballast requirements for loose-laid systems must 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.

8.6 The soil used in roof gardens must not be of a type that will be removed, or become delocalised due to wind scour experienced on the roof.

8.7 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

The membranes can accept the limited foot traffic and light concentrated loads associated with the 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 maintenance of lift equipment, a walkway should be provided, for example, using concrete slabs supported on bearing pads.

10 Resistance to penetration of roots

Results of tests in accordance with EN 13948 : 2007 indicate that the membranes will adequately resist penetration by plant roots.

11 Maintenance



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

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

- adequate ballast is 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 unwanted vegetation are cleared.

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

11.4 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 (see section 4.10). Guidance is available within *The GRO Green Roof Code — Green Roof Code of Best Practice for the UK 2011*.

12 Durability



Accelerated weathering tests confirm that satisfactory retention of physical properties is achieved. Under normal conditions, the membranes will have a service life in excess of 25 years.

13 Reuse and recyclability

The product comprises polyolefins which can be recycled.

Installation

14 General

14.1 Installation of Mapeplan T Roof Waterproofing Membranes must be carried out by installers trained and approved by the Certificate holder in accordance with the relevant Clauses of BS 8000-4 : 1989 and BS 8217 : 2005, the Certificate holder's instructions and this Certificate.

14.2 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.

14.3 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.

14.4 When used over bitumen, coal tar, pitch or oil-based products, a separation layer must be interposed between the substrate and the membrane. In cases of doubt, the advice of the Certificate holder should be sought.

14.5 Detailing must be formed in accordance with the Certificate holder's instructions.

14.6 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.

15 Procedure

Fully-bonded system

15.1 Mapeplan TAF membrane is unrolled onto the substrate, without ripples, with a 50 mm overlap.

15.2 Mapeplan ADS 100 polyurethane adhesive is spread with a rubber squeegee, spatula or fleece roller at a rate of approximately 350–400 g·m⁻² to the substrate. The adhesive must be allowed to foam prior to bringing the fleece-backed membrane onto the substrate. Care should be taken to smooth the surface of the membrane to avoid any creases or air blisters.

15.3 Jointing and flashing should be completed in accordance with the Certificate holder's instructions, see section 16.

Mechanically-fastened system

15.4 Mapeplan TM/TMf membrane is unrolled onto the substrate, without ripples, with a minimum overlap of 110 mm including the width of the washer.

15.5 The membrane is secured within the lap area using the recommended fasteners and seam plates which are placed in a straight line 10 mm from the edge of the membrane.

Loose-laid and ballasted roof systems

15.6 Mapeplan TB membrane is unrolled onto the substrate, without ripples, with a 50 mm overlap, and mechanically fastened at perimeters and protrusions through the roof with Mapeplan pre-punched bars or fixing plates and screws.

15.7 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.

15.8 The membrane must be covered by at least 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.

Green roofs and roof gardens

15.9 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 instructions. Guidance is also available within *The GRO Green Roof Code – Green Roof Code of Best Practice for the UK 2011*.

16 Jointing and flashing procedure

Hot-air welding

16.1 All joints must be sealed, wherever possible by digital temperature-controlled automatic or hand-held hot-air gun. The temperature is set in accordance with the Certificate holder's instructions.

16.2 The welding area must be dry and clean. If the membrane in the welding area is dirty, it must be cleaned in the prescribed manner using Mapeplan T Seam Prep.

16.3 The welded width of the joint must be a minimum of 50 mm. Care should be taken to avoid over-heating of the membrane.

16.4 The seam is tested with a suitable metal probe and any weakness immediately repaired.

Flashing

16.5 Flashing and detailing are formed in accordance with the Certificate holder's instructions.

17 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

18 Tests

18.1 An assessment was made on data to EN 13956 : 2005 in relation to:

- dimensions*
- mass per unit area*
- tensile strength and elongation*
- dimensional stability*
- resistance to tear*
- low temperature foldability*
- resistance to static load*
- resistance to impact*
- watertightness*
- resistance to artificial ageing
- joint peel resistance*
- joint shear resistance*
- resistance to root penetration*.

18.2 Tests were carried out by the BBA:

- to determine
 - water absorption
 - resistance to cyclic movement
 - water vapour permeability
 - resistance to wind uplift
- to assess
 - effect of moisture/vapour
 - fatigue cycling
 - properties when installed.

19 Investigations

Existing data on fire performance of the membranes to BS 476-3 : 2004 were assessed.

Bibliography

- BS 476-3 : 2004 *Fire tests on building materials and structures — Classification and method of test for external fire exposure to roofs*
- 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*
- BS EN ISO 9001 : 2008 *Quality management systems — Requirements*
- EN 13501-1 : 2007 *Fire classification of construction products and building elements — Classification using test data from reaction to fire tests*
- EN 13948 : 2007 *Flexible sheets for waterproofing — Bitumen, plastic and rubber sheets for roof waterproofing — Determination of resistance to root penetration*
- EN 13956 : 2005 *Flexible sheet for waterproofing — Plastic and rubber sheets for roof waterproofing — Definitions and characteristics*

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 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.

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
- 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
- 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.

