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Agrément Certificate 23/6747

Product Sheet 1 Issue 1

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TOPSEAL LIQUID APPLIED ROOF WATERPROOFING SYSTEMS

TOPSEAL PU

This Agrément Certificate Product Sheet⁽¹⁾ relates to Topseal PU, for use as a roof waterproofing on new and existing flat and pitched roofs with limited

(1) Hereinafter referred to as 'Certificate'.

The assessment includes

Product factors:

- compliance with Building Regulations
- compliance with additional regulatory or nonregulatory information where applicable
- evaluation against technical specifications
- assessment criteria and technical investigations
- · uses and design considerations

Process factors:

- compliance with Scheme requirements
- installation, delivery, handling and storage
- · production and quality controls
- · maintenance and repair

Ongoing contractual Scheme elements†:

- · regular assessment of production
- formal 3-yearly review



KEY FACTORS ASSESSED

Section 1. Mechanical resistance and stability

Section 2. Safety in case of fire

Section 3. Hygiene, health and the environment

Section 4. Safety and accessibility in use

Section 5. Protection against noise

Section 6. Energy economy and heat retention

Section 7. Sustainable use of natural resources

Section 8. Durability

The BBA has awarded this Certificate to the company named above for the product described herein. This product has been assessed by the BBA as being fit for its intended use provided it is installed, used and maintained as set out in this Certificate.

On behalf of the British Board of Agrément

Date of issue: 23 February 2023

Hardy Giesler
Chief Executive Officer

 $This BBA \ Agreement \ Certificate \ is issued \ under \ the \ BBA's \ Inspection \ Body \ accreditation.$

The BBA is a UKAS accredited Inspection Body (No. 4345), Certification Body (No. 0113) and Testing Laboratory (No. 3537).

Readers MUST check that this is the latest issue of this Agrément Certificate by either referring to the BBA website or contacting the BBA directly.

The Certificate should be read in full as it may be misleading to read clauses in isolation.

Any photographs are for illustrative purposes only, do not constitute advice and should not be relied upon.

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SUMMARY OF ASSESSMENT AND COMPLIANCE

This section provides a summary of the assessment conclusions; readers should refer to the later sections of this Certificate for information about the assessments carried out.

Compliance with Regulations

Having assessed the key factors, the opinion of the BBA is that Topseal PU, 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 Building Regulations 2010 (England and Wales) (as amended)

Requirement: B4(1) External fire spread

Comment: The product is restricted by this Requirement in some circumstances. See section 2 of

this Certificate.

Requirement: B4(2) External fire spread

Comment: On a suitable substructure, the product may enable a roof to be unrestricted under this

Requirement. See section 2 of this Certificate.

Requirement: C2(b) Resistance to moisture

Comment: The product will enable a roof to satisfy this Requirement. See section 3 of this

Certificate.

Regulation: 7(1) Materials and workmanship

Comment: The product is acceptable. See sections 8 and 9 and the Annex part of this Certificate.

E 223

The Building (Scotland) Regulations 2004 (as amended)

Regulation: 8(1)(2) Durability, workmanship and fitness of materials

Comment: The product satisfies the requirements of this Regulation. See sections 8 and 9 and the

Installation part of this Certificate.

Regulation: 9 Building standards applicable to construction

Standard: 2.6 Spread to neighbouring buildings

Comment: The product is restricted in some cases by this Standard, under clause 2.6.4⁽¹⁾⁽²⁾. See

section 2 of this Certificate.

Standard: 2.7 Spread on external walls

Comment: Use of the product is restricted under clauses 2.7.1⁽¹⁾⁽²⁾ and 2.7.2⁽¹⁾⁽²⁾ of this Standard, in

some circumstances. See section 2 of this Certificate.

Standard: 2.8 Spread from neighbouring buildings

Comment: The product, when applied to a suitable structure, may be unrestricted under clause

2.8.1⁽¹⁾⁽²⁾ of this Standard. See section 2 of this Certificate.

Standard: 3.10 Precipitation

Comment: The product 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 3 of this Certificate.

Standard: 7.1(a) Statement of sustainability

Comment: The product can contribute to satisfying 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.

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Regulation: 12 Building standards applicable to conversions

Comments in relation to the product under Regulation 9, Standards 1 to 6, also apply to

this Regulation, with reference to clause $0.12.1^{(1)(2)}$ and Schedule $6^{(1)(2)}$.

(1) Technical Handbook (Domestic).

(2) Technical Handbook (Non-Domestic).



The Building Regulations (Northern Ireland) 2012 (as amended)

Regulation: 23(1)(a) Fitness of materials and workmanship

Comment: (b)(i) The product is acceptable. See sections 8 and 9 and the Annex part of this Certificate.

Regulation: 28(b) Resistance to moisture and weather

Comment: The product will enable a roof to satisfy the requirements of this Regulation. See section

3 of this Certificate.

Regulation: 36(a) External fire spread

Comment: The product is restricted by this Regulation in some circumstances. See section 2 of this

Certificate.

Regulation: 36(b) External fire spread

Comment: On suitable substructures, the product may enable a roof to be unrestricted under this

Regulation. See section 2 of this Certificate.

NHBC Standards 2023

In the opinion of the BBA, Topseal PU, if installed, used and maintained in accordance with this Certificate, can satisfy or contribute to satisfying the relevant requirements in relation to *NHBC Standards*, Chapter 7.1 *Flat and pitched roofs with limited access*.

In addition, in the opinion of the BBA, the product, when installed and used in accordance with this Certificate, can satisfy or contribute to satisfying the relevant requirements in relation to *NHBC Standards for Conversions and Renovations*, taking account other relevant guidance within the Chapter and the suitability of the substrate to receive the product.

The NHBC Standards do not cover the refurbishment of existing roofs.

Fulfilment of Requirements

The BBA has judged Topseal PU to be satisfactory for use as a roof waterproofing on new and existing flat and pitched roofs with limited access.

ASSESSMENT

Product description and intended use

The Certificate holder provided the following description for the product under assessment. Topseal PU consists of:

- Topseal PU Basecoat a single-part (moisture triggered) polyurethane for use as a basecoat
- Topseal PU Topcoat a single-part (moisture triggered) polyurethane for use as a topcoat
- Topseal PU CSM reinforcement
- Topseal PU Primer a single-part primer for preparing exposed bitumen roofing membranes and porous asphalt, cementitious and timber substrates where required
- Topseal PVC Primer a single-part primer for preparing PVC single-ply membranes prior to application of the embedment coat
- Topseal Epoxy Primer a two-part primer for preparing metal substrates

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• Topseal PU Reactivation Primer — for preparing Topseal PU Basecoat left for more than five days and aged areas under repair, prior to the application of new coats.

The product components have the physical characteristics given in Table 1.

Table 1 Physical characteristics						
Physical	Topseal PU	Topseal PU	Topseal PU	Topseal PVC	Topseal Epoxy	Topseal PU
characteristic	Basecoat	Topcoat	Primer	Primer	Primer	Reactivation
					(Parts A and B)	Primer
Colour	light grey/red	dark grey	brown	clear	beige	clear
Cure/drying time	6 to 12 hours	6 to 12 hours	60 to 120	20 to 60	2 to 4 hours	4 hours
at 20°C			minutes	minutes		approximately

Ancillary items

The Certificate holder recommends the following ancillary items for use with the product, but these materials have not been assessed by the BBA and are outside the scope of this Certificate:

- low modulus mastic sealant
- lead-free cover flashings
- metal hard edges
- lightning conductor pads
- refurbishment outlets
- refurbishments vents
- GRP trims
- concrete floor tiles nonporous
- concrete floor tile adhesive
- concrete paving supports
- free standing edge protection
- polyisocyanurate (PIR) and mineral wool (MW) insulation.

A proprietary carrier membrane is used over substrates with joints, such as insulation boards or plywood decking, and beneath the product. The Certificate holder's Technical Services department must be contacted for further advice.

Topseal PU is satisfactory for use on flat and pitched roofs with limited access on:

- concrete
- asphalt
- bituminous roofing membranes, including mineral surfaced
- steel
- PVC membranes
- · existing polyurethane coatings
- plywood in conjunction with a specified carrier membrane
- PIR foam insulation boards in conjunction with a specified carrier membrane
- mineral wool insulation boards in conjunction with a specified carrier membrane.

<u>Definitions for products and applications inspected</u>

The following terms are defined for the purpose of this Certificate as:

- limited access roof a roof subjected only to pedestrian traffic for maintenance of the roof covering, cleaning of gutters, etc
- flat roof a roof having a minimum finished fall of 1:80
- pitched roof a roof having a fall in excess of 1:6.

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Product assessment – key factors

The product was assessed for the following key factors, and the outcome of the assessments are shown below. Conclusions apply to the whole of the UK unless otherwise stated.

1 Mechanical resistance and stability

Not applicable.

2 Safety in case of fire

Data were assessed for the following characteristics.

2.1 External fire spread

When tested to CEN/TS 1187 : 2012, Test 4 and classified to BS EN 13501-5 : 2016, the systems given in Table 2 of this Certificate achieved a $B_{ROOF}(t4)$.

System (testing orientation)	Substrate	Primer + AVCL	Insulation Layer(s)	Primer + Carrier Membrane	Basecoats, Reinforcement and Topcoat	
System 1 (slopes ≤ 10°)		_	_	A 1.5 mm thick - self-adhesive carrier membrane (no primer)		
System 2 (Slopes ≤ 10°)		A 1.5 mm thick self-adhesive	60 mm PIR			
System 3 (slopes ≤ 10°)	_	AVCL (no primer)	240 mm PIR			
System 4 (roofs of pitches between 10 and 70°)		-	_	A 0.4 mm thick	A layer of Topseal PU	
System 5 (roofs of pitches between 10 and 70°)	An 18 mm	A 0.4 mm thick self-adhesive	60 mm PIR	self-adhesive carrier membrane	Basecoat was applied at 1.0 €·m ⁻² (1.5 kg·m ⁻²) with 225 g·m ⁻² glass fibre mat	
System 6 (roofs of pitches between 10 and 70°)	orientated strand board (OSB)	AVCL (no primer)	240 mm PIR	(no primer)		
System 7 (roofs of pitches between 10 and 70°)	substrate	-	_		- embedded and Topseal PU Topcoat applied	
System 8 (slopes ≤ 10°)	_ ,		25 mm PIR	C	at 1.0 ℓ·m ⁻² (1.5 kg·m ⁻²)	
System 9 (slopes ≤ 10°)	9 (slopes primer w 0.6 mm self-adh	primer with a	•	30 mm MW	mm thick self- adhesive carrier	
System 10 (slopes ≤ 10°)		0.6 mm thick self-adhesive	self-adhesive	self-adhesive	550 mm PIR	membrane
System 11 (slopes ≤ 10°)	_	AVCL	565 mm MW	-		

- 2.1.1 On the basis of data assessed, the systems listed in Table 2 will be unrestricted by the documents supporting the national Building Regulations with respect to proximity to a boundary. Restrictions may apply at junctions with compartment walls.
- 2.1.2 The designation and permissible areas of use of other specifications must be confirmed by reference to the requirements of the documents supporting the national Building Regulations.

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2.2 Reaction to fire

- 2.2.1 The Certificate holder has not declared a reaction to fire classification to BS EN 13501-1: 2018.
- 2.2.2 On the basis of data assessed, a system incorporating Topseal PU will be restricted in use in some cases, under the documents supporting the national Building Regulations.
- 2.2.3 In England, the product, when used in pitches greater than 70°, excluding upstands, should not be used less than 1 m from a boundary, or on residential buildings more than 11 m in height or on other buildings more than 18 m in height. Restrictions apply on assembly and recreation buildings. These constructions should also be included in calculations of unprotected area.
- 2.2.4 In Wales, the products, when used in pitches greater than 70°, excluding upstands, should not be used less than 1 m from a boundary, or on buildings more than 18 m in height. Restrictions apply on assembly and recreation buildings. These constructions should also be included in calculations of unprotected area.
- 2.2.5 In Scotland and Northern Ireland, when used in pitches greater than 70°, excluding upstands, designers should seek guidance on the proposed use of the product/system from the relevant Building Control Body.

3 Hygiene, health and the environment

Data were assessed for the following characteristics.

3.1 Weathertightness

Results of weathertightness tests are given in Table 3.

Table 3 Weathertightness results				
Product assessed	Assessment method	Requirement	Result	
Topseal PU	Watertightness to EOTA TR003: 2004	No leakage after 24 hours exposure to 1 m head of water	Pass	
	Water vapour transmission to BS EN 1931: 2000	Value achieved	s _d – 8.014 m	

- 3.1.1 On the basis of data assessed, the product will adequately resist the passage of moisture to the inside of a building and so satisfy the requirements of the national Building Regulations.
- 3.1.2 The adhesion of the product to the substrates covered by this Certificate was tested and the results are given in Table 4.

Product	Assessment method	Requirement	Results
assessed			
Topseal PU	Delamination to EOTA TR 004: 2004	≥ 50kPa	(Mean)
	(substrate)		
	Concrete		Pass
	Asphalt		Pass
	Bituminous membrane		Pass
	Plywood		Pass
	PVC membrane		Pass
	Day joint		Pass
	Carrier membrane on PIR insulation		Pass

3.1.3 On the basis of data assessed, the adhesion of the product to the substrates covered by this Certificate is sufficient to resist the effects of wind suction, elevated temperature and thermal shock conditions likely to occur in practice and remain weathertight.

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3.1.4 The resistance to wind uplift for warm roofs 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.

3.2 Resistance to mechanical damage:

3.2.1 Results of resistance to mechanical damage tests are given in Table 5.

Table 5 Re	esults of mechanical damage tests		
Product	Assessment method	Requirement	Results
assessed			
Topseal	Dynamic indentation to EOTA TR 006 : 2004	Value achieved	
PU	(on steel)		
	Control tested at 20°C		14
	Control tested at -20°C		14
	Dynamic indentation to EOTA TR 006 : 2004	Value achieved	
	(carrier membrane on PIR)		
	Control tested at 20°C		14
	Dynamic indentation to EOTA TR 006 : 2004	Value achieved	
	(carrier membrane on mineral wool)		
	Control tested at 20°C		14
	Dynamic indentation to EOTA TR 006 : 2004	Value achieved	
	(on steel)		
	Cured at 5°C		14
	Cured at 30°C		14
	Static indentation to EOTA TR 007: 2004	Value achieved	
	(carrier membrane on PIR)		
	Control tested at 23°C		14
	Static indentation to EOTA TR 007: 2004	Value achieved	
	(carrier membrane on mineral wool)		
	Control tested at 23°C		14
	Static indentation to EOTA TR 007: 2004	Value achieved	
	(on steel)		
	Control tested at 23°C		14
	Control tested at 80°C		14
	Tensile strength / Elongation to		
	BS EN ISO 527-1: 2019 and	Value achieved	
	BS EN ISO 527-3 : 2018		
	Control		1485 N per 50 mm/2.75 %
	Fatigue	No evidence of leakage after	
	EOTA TR 008 : 2004	24 hours of exposure to	
	Control (1000 cycles)	100 mm head of water. No	Pass
		debonding, or if any, not	
		exceeding 75 mm in total or	
		50 mm on one side of the gap	

- 3.2.2 On the basis of data assessed, the product can accept, without damage, the foot traffic and light concentrated loads associated with installation, maintenance and the effects of minor movement likely to occur in practice while remaining weathertight.
- 3.2.3 Where traffic in excess of the examples given in section 3.2.2 is envisaged, such as for maintenance of lift equipment, a walkway must be provided (for example, using concrete slabs supported on bearing pads). Reasonable care must be taken to avoid puncture by sharp objects or concentrated loads.
- 3.2.4 The product is capable of accepting minor structural movement while remaining weathertight.

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4 Safety and accessibility in use

Not applicable.

5 Protection against noise

Not applicable.

6 Energy economy and heat retention

Not applicable.

7 Sustainable uses of natural resources

Not applicable.

8 Durability

- 8.1 The potential mechanisms for degradation and the known performance characteristics of the materials in this product were assessed.
- 8.2 Specific test data were assessed, as given in Table 6.

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Product assessed	Assessment method	Requirement	Tensile Strength Result
Topseal PU exposed to	EOTA TR 0012 : 2004Concrete	≥50kPa	(Mean)
water hot water, at 60°C for	Asphalt	ZJUKFa	Pass
60 days)	Bituminous membrane		Pass
oo days)	Plywood		Pass
	PVC membrane		Pass
	Day joint		Pass
	Carrier membrane on PIR insulation		Pass
	Carrier membrane on Pik insulation		
		- 1 1111	Pass
Topseal PU	Dynamic indentation to EOTA TR 006 (on steel)	Declared Value	
	Heat aged for 166 days at -30°C		14
	UV aged for 800MJm ⁻² at -10°C		14
	Static indentation to EOTA TR 007	Declared Value	
	(on steel)		1.4
	Water exposure (60days) at 23°C		14
	Water exposure (60days) at 80°C		14
	Tensile strength/Elongation to		
	BS EN ISO 527-1: 2019 and	No significant	
	BS EN ISO 527-3 : 2018	deterioration	
	UV Aged For 800 MJm ⁻² (Exposure		Pass
	condition `S' (60°C) as defined in		
	EOTA TR-010)		
	Heat aged for 166 days at 70°C		Pass
	Fatigue to	No evidence of	
	EOTA TR 008	leakage after 24	
		hours of exposure	
	Heat aged 166 Days at 70°C	to 100 mm head	Pass
	(50 Cycles)	of water. No	
		debonding, or if	
		any, not	
		exceeding 75 mm	
		in total or 50 mm	
		on one side of the	
		gap	

8.3 Service life

Under normal service conditions, the product will provide a durable waterproof covering with a service life of at least 20 years provided it is designed, installed and maintained in accordance with this Certificate and the Certificate holder's instructions.

PROCESS ASSESSMENT

T 11 C D 11 C 1 1 1111 1 1

9 Design, installation, workmanship and maintenance

9.1 Design

- 9.1.1 The design process was assessed by the BBA, and the following requirements apply in order to satisfy the performance assessed in this Certificate.
- 9.1.2.1 Decks to which the product is to be applied must comply with the relevant requirements of BS 6229 : 2018 and, where appropriate, *NHBC Standards* 2023, Charter 7.1.

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- 9.1.3.2 For design purposes of flat roofs, twice the minimum finished fall must be assumed, unless a detailed analysis of the roof is available, including overall and local deflection, direction of falls.
- 9.1.4.3 Insulation materials to be used in conjunction with the product must be in accordance with the Certificate holder's instructions and must be either:
- as described in the relevant clauses of BS 6229 : 2018, or
- the subject of a current BBA Certificate and used in accordance with, and within the limitations of, that Certificate.

9.2 Installation

- 9.2.1 Installation instructions provided by the Certificate holder were assessed and judged to be appropriate and adequate.
- 9.2.1.1 All components must only be applied when the air and substrate temperatures are greater than 5°C. Special precautions may be necessary when temperatures exceed 30°C. Advice can be obtained from the Certificate holder but such advice is outside the scope of this Certificate.
- 9.2.1.2 Substrates on which the product is to be applied must be properly prepared in accordance with the Certificate holder's instructions.
- 9.2.1.3 Adhesion to substrates will depend on the condition and cleanness of the substrate. Substrates must be visibly dry, sound and free from loose materials or contamination (eg moss or algae).
- 9.2.1.4 The surface must be prepared to remove loose or flaking materials, and the substrate must be visibly dry before application of the product.
- 9.2.1.5 Damaged areas of the substrate (eg blistered membrane) must be removed, replaced or repaired. Substrate defects (eg shallow-bottomed cracks and indentations) are filled in accordance with the Certificate holder's instructions.
- 9.2.1.6 Deck surfaces must be free from sharp projections such as concrete nibs.
- 9.2.1.7 All points of potential weakness such as splits, cracks, joints and crazed surfaces must be additionally reinforced in accordance with the Certificate holder's instructions prior to application of the main system.
- 9.2.2.1 Installation of Topseal PU must be carried out only by specialist roofing contractors trained and approved by the Certificate holder, in accordance with the relevant clauses of BS 8000-0: 2014, BS 8000-4: 1989, Liquid Roofing and Waterproofing Association (LRWA) Note 7 Specifier Guidance for Flat Roof Falls, the Certificate holder's instructions and this Certificate.
- 9.2.2.2 The NHBC requires that Topseal PU, once installed, is inspected in accordance with *NHBC Standards* 2023, Chapter 7.1, Clause 7.1.11, and undergoes an appropriate integrity test, where required. Any damage to the product assessed in this Certificate must be repaired in accordance with section 9.4 of this Certificate and reinspected, in order to maintain product performance.

9.3 Workmanship

Practicability of installation was assessed on the basis of the Certificate holder's information. To achieve the performance described in this Certificate, the product must only be installed by contractors who have been trained and approved by the Certificate holder.

9.4 Maintenance and repair

Ongoing satisfactory performance of the product in use requires that it is suitably maintained. The guidance provided by the Certificate holder was assessed by the BBA and found to be appropriate and adequate.

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The following requirements apply in order to satisfy the performance assessed in this Certificate:

- 9.4.1 The product must be the subject of six-monthly inspections and maintenance in accordance with the recommendations of BS 6229 : 2018, Chapter 7, and the Certificate holder's own maintenance requirements, where relevant, to ensure continued satisfactory performance.
- 9.4.2 In the event of damage, repairs must be carried out by cleaning back to the unweathered material with clean water or dilute detergent solution, allowing to dry, reactivating using Topseal PU Reactivation Primer if over five days old, and recoating the damaged area with the membrane at the recommended coverage rates given in the procedure.

10 Manufacture

- 10.1 The production processes for the product have been assessed, and provide assurance that the quality controls are satisfactory according to the following factors:
- 10.1.1 The manufacturer has provided documented information on the materials, processes, testing and control factors.
- 10.1.2 The quality control operated over batches of incoming materials has been assessed and deemed appropriate and adequate.
- 10.1.3 The quality control procedures and product testing to be undertaken have been assessed and deemed appropriate and adequate.
- 10.1.4 The process for management of non-conformities has been assessed and deemed appropriate and adequate.
- 10.1.5 An audit of each production location was undertaken, and it was confirmed that the production process was in accordance with the documented process, and that equipment has been properly tested and calibrated.
- †10.1.6 BBA has undertaken to review 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.

11 Delivery and site handling

11.1 The Certificate holder stated that the product is delivered to the site in packaging bearing the product name, batch number, health and safety data, and the BBA logo incorporating the number of this Certificate. Table 7 gives the packaging types and sizes.

Table 7 Packaging and storage					
Product component	Packaging type	Size (litres)	Storage temperature (C°)	Shelf-life (months)	
Topseal PU Basecoat	Cans	15	5 - 25	12	
Topseal PU Topcoat	Cans	15	5 - 25	12	
Topseal PVC Primer	Cans	5	5 - 25	12	
Topseal PU Primer	Cans	5	5 - 25	6	
Topseal Epoxy Primer (Parts A and B)	Kits	4	5 - 25	12	
Topseal PU Reactivation Primer	Cans	5	5 - 25	6	

- 11.2 Delivery and site handing must be performed in accordance with the Certificate holder's instructions and this Certificate, including:
- 11.2.1 The liquid components must be stored in a dry, shaded area and away from ignition sources. The shelf-life given in Table 7 is for the storage temperature range as quoted; at higher temperatures, the shelf-life will reduce progressively.

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ANNEX A – SUPPLEMENTARY INFORMATION †

Supporting information in this Annex is relevant to the product but has not formed part of the material assessed for the 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.

CLP Regulations

The Certificate holder has taken the responsibility of classifying and labelling the product components under the GB CLP Regulation and the CLP Regulation (EC) No 1272/2008 - classification, labelling and packaging of substances and mixtures. Users must refer to the relevant Safety Data Sheet(s).

Additional information on installation

General

A.1 Detailing (eg upstands) is carried out in accordance with the Certificate holder's instructions.

Site and surface preparation

- A.2 Gutters and outlets should be checked to ensure that they are, and remain, clear of all debris.
- A.3 Most substrates require priming prior to the application of the product. Peel-strength adhesion tests should be carried out on-site, prior to application, in order to ensure sufficient adhesion can be achieved and to determine priming requirements.
- A.4 Primer application rates are given in Table 8.

Table 8 Primer application rates				
Primer	Application rate (m²·ℓ⁻¹)			
Topseal PU Primer	16 – 20			
Topseal Epoxy Primer	10 – 20			
Topseal PVC Primer	5 – 8			
Topseal PU Reactivation Primer	8 – 10			

Procedure

- A.5 Application can be by brush or roller. Brush application is normally used only for small roof areas and for embedding the fibre mat reinforcement into the waterproofing at areas of detailing.
- A.6 Work should only commence on an area if it can be carried out to the full thickness for that particular coat, before weather changes occur. Where weather interrupts installation between layers, installation can proceed for up to five days, provided the surface is clean, without the need for Topseal PU Reactivation Primer.
- A.7 The product is applied at the coverage rate for a smooth texture substrate given in Table 9. The advice of the Certificate holder on coverage rates for intermediate, rough, porous and undulating substrates must be sought, but such advice is outside the scope of this Certificate. Topseal PU CSM is embedded in Topseal PU Basecoat while the membrane is still wet, ensuring a minimum overlap of 50 mm at all laps of the reinforcement.

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Table 9 System coverage rates and finished thickness				
Layer (unit) Full reinforcement system				
Topseal PU Basecoat (I·m ⁻²)	1.0			
Topseal PU CSM	225 g⋅m ⁻² reinforcement			
Topseal PU Topcoat (I·m⁻²)	1.0			

A.8 The embedment coat is left to cure prior to the application of Topseal PU Topcoat at the coverage rate given in Table 9, which is left to cure before any trafficking of the surface is allowed.

A.9 Random tests are carried out on the finished coating surface by cutting out small areas to measure finished cured thickness. Test areas must be repaired after the sample is taken.

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Bibliography

BS 6229: 2018 Flat roofs with continuously supported flexible waterproof coverings — Code of practice

BS 8000-0 : 2014 Workmanship on construction sites — Introduction and general principles BS 8000-4 : 1989 Workmanship on building sites — Code of practice for waterproofing

BS EN 13501-5 : 2016 Fire classification of construction products and building elements — Classification using data from external fire exposure to roofs tests

BS EN ISO 527-1 : 2019 Plastics — Determination of tensile properties — General principles

BS EN ISO 527-3: 2018 Plastics — Determination of tensile properties — Part 3: Test conditions for films and sheets

CEN/TS 1187: 2012 Test methods for external fire exposure to roofs

EOTA TR004 Determination of the resistance to wind loads of partially bonded roof waterproofing membranes

EOTA TR006 Determination of the resistance to dynamic indentation

EOTA TR007 Determination of the resistance to static indentation

EOTA TR008 Determination of the resistance to fatigue movement

EOTA TR010 Exposure procedure for artificial weathering

EOTA TR012 Exposure procedure for accelerated ageing by hot water

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Conditions of Certificate

Conditions

- 1 This Certificate:
- relates only to the product 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.
- 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.
- 3 This Certificate will be displayed on the BBA website, and the Certificate Holder is entitled to use the Certificate and Certificate logo, provided that the product 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.
- 4 The BBA has used due skill, care and diligence in preparing this Certificate, but no warranty is provided.
- 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 or any other product
- the right of the Certificate holder to manufacture, supply, install, maintain or market the product
- actual installations of the product, including their nature, design, methods, performance, workmanship and maintenance
- any works and constructions in which the product is installed, including their nature, design, methods, performance, workmanship and maintenance
- any loss or damage, including personal injury, howsoever caused by the product, including its manufacture, supply, installation, use, maintenance and removal
- any claims by the manufacturer relating to CE marking.

6 Any information relating to the manufacture, supply, installation, use, maintenance and removal of this product which is contained or referred to in this Certificate is the minimum required to be met when the product 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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