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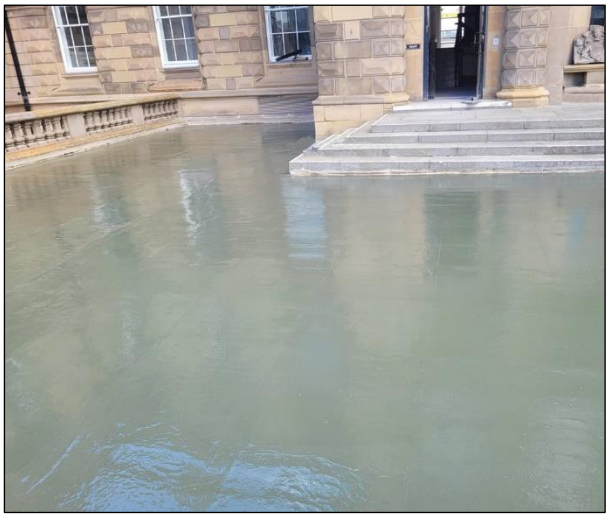
Agrément Certificate
23/6726
Product Sheet 1 Issue1

STRATA ROOF WATERPROOFING SYSTEMS

STRATASHIELD PROFLEX ROOF WATERPROOFING SYSTEMS

This Agrément Certificate Product Sheet(1) relates to Stratashield Proflex Roof Waterproofing Systems, a liquid-applied polyurethane membrane for use as a waterproofing layer on new and existing flat roofs with limited and protected pedestrian access, blue roofs and pitched roofs for waterproofing balconies, terraces and podiums.

(1) Hereinafter referred to as 'Certificate'.



The assessment includes

Product factors:

- compliance with Building Regulations
- compliance with additional regulatory or non-regulatory 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 March 2023

Hardy Giesler
Chief Executive Officer

This BBA Agrément Certificate is issued under the BBA's Inspection Body accreditation to ISO/IEC 17020. Sections marked with † are not issued under 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 Stratashield Proflex Roof Waterproofing Systems, 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 part of this Certificate.
Regulation:	**7(2)**	**Materials and workmanship**
Comment:		Use of the product on balconies is restricted under this Regulation. See section 2 of this Certificate.

The Building (Scotland) Regulations 2004 (as amended)

Regulation:	**8(1)(2)**	**Durability, workmanship and fitness of materials**
Comment:		The use of the product satisfies the requirements of this Regulation. See sections 8 and 9 of this Certificate.
Regulation:	**8(3)**	**Fitness and durability of materials and workmanship**
Comment:		The use of the product on balconies is restricted under this Regulation. See section 2 of this Certificate.
Regulation:	**9**	**Building standards applicable to construction**
Standard:	2.2	Separation
Comment:		Use of the product on balconies is restricted under clause 2.2.7[(1)] of this Standard. See section 2 of this Certificate.
Standard:	2.6	Spread to neighbouring buildings
Comment:		The product is restricted under clause 2.6.4[(1)(2)] of this Standard, in some circumstances. See section 2 of this Certificate.
Standard:	2.7	Spread on external walls
Comment:		Use of the product is restricted under clause 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:		On a suitable substructure, the product may enable a roof to be unrestricted under this Standard, with reference to clause 2.8.1[(1)(2)]. 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 meeting the relevant requirements of Regulation 9, Standards 1 to 6 and therefore will contribute to a construction meeting a bronze level of sustainability as defined in this Standard.
Regulation:	**12**	**Building standards applicable to conversions**
Comment:		Comments in relation to the 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)(i) (ii)(iii)(iv) (b)(i)**	**Fitness of materials and workmanship**
Comment:		The product is acceptable. See sections 8 and 9 part of this Certificate.
Regulation:	**23(2)**	**Materials and workmanship**
Comment:		Use of the product on balconies is restricted under this Regulation. See section 2 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 by this Regulation. See section 2 of this Certificate.

NHBC Standards 2023

In the opinion of the BBA, Stratashield Proflex Roof Waterproofing Systems, 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 roofs, terraces and balconies*.

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 of other relevant guidance within the chapter and the suitability of the substrate to receive the product.

The NHBC do not cover the refurbishment of existing roofs.

Fulfilment of Requirements

The BBA has judged Stratashield Proflex Roof Waterproofing Systems to be satisfactory for use as described in this Certificate. The product has been assessed for use as a waterproofing layer on new and existing flat roofs with limited and pedestrian access, blue roofs and pitched roofs for waterproofing balconies, terraces and podiums.

ASSESSMENT

Product description and intended use

The Certificate holder provided the following description for the product under assessment. Stratashield Proflex Roof Waterproofing Systems consist of:

- Stratashield — a single-component, polyurethane, liquid-applied waterproofing membrane available in black, light grey (similar to RAL 7001), dark grey (similar to RAL 7011), dark red and tile red
- StrataShield Flex Thix — a single-component, polyurethane, liquid-applied 'Quick Cure' variant of Stratashield, available in black, light grey (similar to RAL 7001), dark grey (similar to RAL 7011), dark red and tile red, and with a typical curing time of 2.5 hours at 14°C >85% RH and 4 hours at 7°C >50% RH
- StrataShield Solar Reflective — a single-component, aliphatic polyurethane, liquid-applied waterproofing membrane, available in white and grey (RAL 7001)
- StrataShield Flex — a single-component, polyurethane, liquid-applied waterproofing membrane with thixotropic adjustments (<2%) added after manufacturing and prior to delivery which allows resin to be applied over sloped surfaces. It is available in black, light grey (similar to RAL 7001), dark grey (similar to RAL 7011), dark red and tile red
- StrataShield Catalyst — a catalyst for mixing into Stratashield or StrataShield Flex Thix /Flex/Solar Reflective to reduce the curing time. The catalyst must not be used at temperatures above 20˚C
- StrataFleece Geomax — a 80 $g \cdot m^{-2}$ polyester reinforcement fabric for embedding into Stratashield or StrataShield Flex Thix/Flex/Solar Reflective over existing cracks, at upstands and other changes of plane in the unreinforced systems
- StrataFleece GF 150m x 1m — a 150 $g \cdot m^{-2}$ glass fibre mat, for use in the fully reinforced system
- StrataPrime HP — a two-component primer for use on concrete surfaces where the moisture content of the concrete is greater than 4%
- StrataShield Porosity — a moisture-cured single-component polyurethane primer for use over porous, dry and rigid substrates
- StrataShield Porosity Flex — a moisture-cured single-component polyurethane primer for use over dry and flexible substrates
- StrataShield Rapide Primer — a two-component fast curing polyurea based primer for use over dry and flexible substrates
- Thixotropy Additive — an additive mixed into Stratashield or StrataShield Flex Thix/Solar Reflective when used at upstands.

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:

- StrataShield PU Solvent — a general-purpose cleaning solvent and diluent viscosity modifier. When blended at a maximum addition rate of 10% with Stratashield or StrataShield Flex Thix/Flex/Solar Reflective, the mixture may be used as a sealer/primer on porous substrates
- StrataPrime Porosity — a single-component primer for use over porous and dry substrates
- StrataPrime Bonding Agent — a one-component, non-film forming primer for use on a range of non-porous substrates including glass and steel
- StrataShield Cladseal — a single-component, decorative and protective aliphatic polyurethane coating for application over Stratashield and StrataShield Flex Thix/Flex
- StrataShield Sealer Coat — a single-component, decorative and protective aliphatic polyurethane coating for application over Stratashield and StrataShield Flex Thix/Flex

Applications

The product is suitable for use on the following substrates:

- concrete (including damp concrete)
- mortar
- ceramic
- timber
- metals
- single-ply membranes (PVC, TPO and EPDM)
- liquid, bituminous roof coatings
- polyurethane foam insulation boards.

Definitions for products and applications inspected

- limited access roof — a roof subjected only to pedestrian traffic for maintenance of the roof covering, cleaning of gutters, etc
- pedestrian access roof — a roof that is suitable for foot traffic only
- flat roof — a roof having a minimum finished fall of 1:80
- pitched roof — a roof having a fall in excess of 1:6
- zero fall roofs — a roof having a finished fall of between 0 to 1:80
- blue roofs — a flat roof designed to allow controlled attenuation of rain fall during storm events.

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

2.1.1 When tested to ENV 1187 : 2002, Test 4 and CEN/TS 1187 : 2012, Test 4 and classified to BS EN 13501-5 : 2005 and BS EN 13501-5 : 2016, the systems given below achieved $B_{ROOF}(t4)$ for slopes up to and including 10°:

- an 18 mm plywood deck with a layer of Stratashield dark grey (1 kg·m^{-2} application rate, roller applied) and a topcoat of Stratashield red (1 kg·m^{-2} application rate, roller applied)
- an 18 mm thick plywood deck primed with StrataPrime HP (0.3 g·m^{-2}, roller applied) a layer of Stratashield light grey (1.5 kg·m^{-2} application rate, roller applied) reinforced with StrataFleece GF and a topcoat of StrataShield Solar Reflective (0.7 kg·m^{-2} application rate, roller applied).

2.1.2 On basis of data assessed, the constructions given in section 2.1.1 will be unrestricted by the documents supporting the national Building Regulations with respect to proximity to a boundary.

2.1.3 When used in conjunction with one of the inorganic coverings listed in the Annex of Commission Decision 2000/553/EC, the systems will also be unrestricted with respect to proximity from a boundary under by the documents supporting the national Building Regulations.

2.1.4 The designation and permissible areas of use of other specifications should be confirmed by reference to the requirements of the documents supporting the national Building Regulations.

2.2 Reaction to fire

2.2.1 The Certificate holder has not declared a reaction to fire classification for Stratashield Proflex Roof Waterproofing Systems.

2.2.2 On the basis of data assessed, Stratashield Proflex Roof Waterproofing Systems will be restricted in use under the documented supporting the national Building Regulations in some cases.

2.2.3 In England, the product, when used in pitches of greater than 70°, excluding upstands, should not be used less than 1 m boundary, or on residential buildings that have a storey at least 11 m above ground level or on other buildings more than 18 m 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 product, when used in pitches of greater than 70°, excluding upstands, should not be used less than 1 m from a boundary, 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.

2.2.5 In Scotland and Northern Ireland, the product incorporating the system used in pitches greater than 70°, excluding upstands, that do not achieve the minimum Class E reaction to fire classification to BS EN 13501-1 : 2018, designers should seek guidance on the proposed use of the system from the relevant Building Control Body.

2.2.6 In England, the product should not be used exposed on balconies on residential buildings that have a storey at least 11 m above ground level.

2.2.7 In Wales and Northern Ireland, the product should not be used exposed on balconies on buildings that have a storey at least 18 m above ground level and which contain one or more dwellings, an institution, a room for residential purposes (excluding any room in a hostel, hotel or boarding house), student accommodation, care homes, sheltered housing, hospitals or dormitories in boarding schools and additionally, in Northern Ireland, nursing homes and places of lawful detention.

2.2.8 In Scotland, the product should not be used on balconies of buildings with a storey more than 11 m above the ground.

3 Hygiene, health and the environment

Data were assessed for the following characteristics.

3.1 Weathertightness

Results of weathertightness tests are given in Table 1.

Table 1 Results of weathertightness tests

Product assessed	Assessment method	Requirement	Result
Stratashield Proflex	Watertightness to EOTA TR003	No leakage after 24 hour exposure to 1 metre head of water	Pass
Stratashield Proflex	Resistance to water vapour diffusion to EN 1931 : 2000	μ >1000	Pass
Stratashield Proflex	Resistance to delamination to EOTA TR-004	> 50 kPa	
	substrate:		
	- concrete		Pass
	- ceramic		Pass
	- polyurethane insulation		Pass
	- day joint on concrete		Pass

3.1.1 On the basis of data assessed, Stratashield Proflex Roof Waterproofing Systems will adequately resist the passage of moisture into the interior of a building and so satisfy the requirements of the national Building Regulations.

3.1.2 The adhesion of the product to concrete is sufficient to resist the effects of wind suction, thermal cycling or other minor structural movement likely to occur in service.

3.2 Resistance to mechanical damage

Results of resistance to mechanical damage tests are given in Table 2.

Table 2 Mechanical damage tests

Product assessed	Assessment method	Requirement	Result
Stratashield Proflex	Resistance to dynamic indentation to EOTA TR-006 tested at 23°C substrate: - steel - polyurethane insulation Tested at -20°C substrate: - steel - polyurethane insulation	Value achieved	 I_4 I_4 I_4 I_4
Stratashield Proflex	Resistance to static indentation to EOTA TR-007 tested at 23°C substrates: - steel - polyurethane insulation Tested at 60°C substrate: - steel - polyurethane insulation Tested at 80°C substrates: - steel - polyurethane insulation	Value achieved	 L_4 L_3 L_4 L_1 L_3 L_1
Stratashield Proflex	Fatigue cycling EOTA TR 008 1000 cycles at -10°C	No evidence of leakage after 24 hours exposure to 100 mm head of water. No debonding, or if any not exceeding 75 mm in total or 50 mm on one side of the gap	Pass
Stratashield Proflex	Tensile strength to EN ISO 527-3 : 2018	Value achieved	2.4 MPa
Stratashield Proflex	Elongation to EN ISO 527-3 : 2018	Value achieved	459%

3.2.1 The product can accept, without damage, the limited foot traffic and light concentrated loads associated with installation, maintenance and pedestrian traffic(1). However, care must be taken to avoid puncture by sharp objects or concentrated loads.

(1) When used with a suitable paving or tiles on a sand or mortar bed.

3.2.2 The product is capable of accepting minor structural movement while remaining weathertight.

4 Safety and accessibility in use

Not applicable.

5 Protection against noise

Not applicable.

6 Energy economy and heat retention

Not applicable.

7 Sustainable use of natural resources

Not applicable.

8 Durability

8.1 The potential mechanisms for degradation and the known performance characteristics of the materials in the product were assessed.

8.2 Specific test data were assessed as given in Table 3.

Table 3 Results of durability tests

Product assessed	Assessment method	Requirement	Result
Stratashield Proflex	Resistance to dynamic indentation to EOTA TR-006 heat aged at 80°C for 200 days tested at -20°C substrate: - steel UV aged for 1000 MJ.m^{-2} at 60°C tested at -10°C substrate: - steel - polyurethane insulation	Value achieved	 I_4 I_4 I_4
Stratashield Proflex	Fatigue cycling EOTA TR 008 50 cycles at -10°C Heat aged to EOTA TR -11	No evidence of leakage after 24 hours exposure to 100 mm head of water. No debonding, or if any not exceeding 75 mm in total or 50 mm on one side of the gap	Pass
Stratashield Proflex	Tensile strength to BS EN ISO 527-3 : 2018 Heat aged at 80°C for 200 days UV aged for 1000 MJ·m^{-2} at 60°C	Value achieved	 3.3 MPa 3.1 MPa
Stratashield Proflex	Elongation to BS EN ISO 527-3 : 2018 Heat aged at 80°C for 200 days UV aged for 1000 MJ·m^{-2} at 60°C	No significant deterioration	 Pass Pass
Stratashield Proflex	Static Indentation to EOTA TR-007 Water exposure at 60°C for 60 days tested at 60°C substrate: - steel Tested at 80°C substrate: - steel	Value achieved	 L_4 L_3

Service life

8.3 Under normal service conditions, the product will have a life of at least 25 years, provided it is designed, installed and maintained in accordance with this Certificate and the Certificate holder's instructions.

PROCESS ASSESSMENT

Information provided by the Certificate holder was assessed for the following factors:

9 Design, installation, workmanship and maintenance

9.1 Design

9.1.1 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, Chapter 7.1.

9.1.2 Balconies and terraces, to which the product is to be applied, must be designed in accordance with BS 8579 : 2020.

9.1.3 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, etc.

9.1.4 Dead loads, wind loading and imposed loads must be calculated by a suitably experienced and competent individual in accordance with BS EN 1991-1-1 : 2002, BS EN 1991-1-3 : 2003 and BS EN 1991-1-4 : 2005, and their UK National Annexes.

9.1.5 The drainage systems for blue roofs must be correctly designed and provision made for access for maintenance purposes.

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

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

9.2.2 Installation of Stratashield Proflex Roof Waterproofing Systems must be in accordance with the relevant clauses of BS 8000-0 : 2014, BS 8000-4 : 1989, BS 6229 : 2018.

9.2.3 Installation must not be carried out during inclement weather, eg rain, fog or snow, and the ambient temperature at the time of laying must be between 5 and 35°C. Surfaces to be coated must be at least 3°C above the dew-point.

9.2.4 Substrates to which the product is to be applied must be sound, dry, clean and free from sharp projections such as nail heads and concrete nibs. The Certificate holder's advice should be sought for suitable cleaning procedures and the use of a proprietary surface cleaner/HSE approved fungicidal wash, but such advice is outside of the scope of this Certificate.

9.2.5 Previously coated areas must be checked for integrity and adequate adhesion to the substrate. Defects such as cracks and blisters must be repaired prior to application of the product in accordance with the Certificate holder's instructions.

9.2.6 Defects in the substrate (eg cracks) must be repaired, prior to application, in accordance with the Certificate holder's instructions. Cracks are treated with a reinforced Stratashield coating layer consisting of a 300 mm strip of reinforcement fabric embedded in Stratashield or StrataShield Flex Thix/Flex/Solar Reflective prior to the application of the main waterproofing layer.

9.2.7 Active joints must also be treated with a reinforced Stratashield or StrataShield Flex Thix/ Flex/Solar reflective coating layer, prior to the application of the main waterproofing layer, to ensure that the designed movement accommodation is maintained. The Certificate holder's advice should be sought for suitable specifications.

9.2.8 Substrates must be prepared and primed in accordance with the Certificate holder's instructions. Adhesion checks should be carried out to ensure that the product is fully compatible with the existing surfaces and to determine the necessity for a primer.

9.2.9 A check must be made on the cured membrane for the presence of pinholes and missed areas. These are rectified by applying additional coats of membrane as necessary.

9.2.10 When used on public access roofs, the fully cured product must be covered with suitable paving or tiles on a sand or mortar bed. The Certificate holder must be consulted for details.

9.2.11 Stratashield or StrataShield Flex Thix/Flex/Solar Reflective is mixed for at least two minutes using a slow-speed drill fitted with a suitable paddle stirrer, taking care to avoid excessive air entrainment and ensuring that any settlement occurring during storage is re-dispersed and the product is homogeneous.

9.2.12 Cracks and upstands must be treated with a reinforced Stratashield or StrataShield Flex Thix/Flex/Solar Reflective coating layer in accordance with the Certificate holder's instructions.

9.2.13 Where application to upstands or other steep slopes is required, StrataShield Flex may be used. Alternatively, Thixotropy Additive can be mixed into Stratashield or StrataShield Flex Thix/Solar Reflective at a rate of 1 kg of additive to 25 kg of coating.

9.2.14 Stratashield Proflex Roof Waterproofing Systems can be applied via two different application methods. The aromatic base coat (reinforced or non-reinforced)/aromatic topcoat described in section 9.2.15 and 9.2.16 and the aromatic base coat (reinforced)/aliphatic topcoat described in section 9.2.17 and 9.2.18.

9.2.15 Base coats of Stratashield or StrataShield Flex Thix/StrataShield Flex is applied by roller, squeegee or suitable airless spray machine in two coats each at a rate of 1 kg·m–2 to achieve a minimum total application rate of 2 kg·m–2 and a minimum total coating thickness of 1.6 mm.

9.2.16 For the reinforced system, StrataFleece GF 150m x 1m is embedded in the wet base coat. At least 24 hours should be allowed between coats of Stratashield/StrataShield Flex and 1 to 4 hours between coats of StrataShield Flex Thix, depending on environmental conditions.

9.2.17 A base coat of Stratashield or StrataShield Flex Thix/StrataShield Flex is applied by roller, squeegee or suitable spray airless machine at a rate of 1.5 kg·m-2. StrataFleece GF 150m x 1m is embedded in the wet resin.

9.2.18 A top coat of StrataShield Solar Reflective is applied by roller, squeegee or suitable spray airless machine at a rate of 0.7 kg·m-2. The objective is to achieve a minimum total rate of 2.2 kg·m-2 and a minimum total coating thickness of 1.8 mm.

9.2.19 When applied by roller, it is recommended that the membrane application is carried out in two or three coats to achieve the required application rate.

9.2.20 Following application, a spiked roller is used to eliminate air bubbles that form in the wet membrane.

9.2.21 The NHBC requires that Stratashield Proflex Roof waterproofing Systems, once installed, be inspected in accordance with of *NHBC Standards* 2023, Chapter 7, Clause 7.1.12, including the use of an appropriate integrity test, where required. Any damage to the system assessed in this Certificate must be repaired in accordance with section 9.4 of this Certificate and reinspected, in order to maintain system performance.

9.3 Workmanship

9.3.1 Practicability of installation was assessed by the BBA on the basis of the Certificate holder's information. To achieve the performance described in this Certificate, installation of the product must be carried out by installers who have been trained and approved by the Certificate holder.

9.3.2 Details of the approved installers are available from the Certificate holder.

9.4 Maintenance and repair

9.4.1 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.

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

9.4.2.1 The roof system must be the subject of six-monthly inspections and maintenance in accordance with the recommendations of BS 6229 : 2018, Chapter 7 and the manufacturers own maintenance requirements, where relevant, to ensure continued satisfactory performance.

9.4.2.2 Maintenance must include checks and operations to ensure that the membrane and drainage outlets are free from the build-up of silt and other debris.

9.4.2.3 Damage to the product must be repaired as soon as possible to ensure that waterproofing integrity is maintained.

9.4.2.4 The product can be repaired by cutting back the damaged or de-bonded coating to sound, well-bonded material and reinstating it to the original specification ensuring an overlap of at least 30 mm onto the existing coating.

9.4.2.5 Areas of existing coating to be overlapped must be cleaned, dried and primed with StrataPrime Bonding Agent and allowed to fully dry for at least one hour prior to overcoating in accordance with the Certificate holder's instructions.

9.4.3 On completion, and when the coating has fully cured, the repair must be inspected to ensure it is sound and well bonded to the existing coating.

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.

† 10.2 The BBA has undertaken to carry out the above measures on a regular basis through a surveillance process, to verify that the specifications and quality control operated by the manufacturer are being maintained.

11 Delivery and site handling

11.1 The Certificate holder stated that the product is delivered to site in packaging bearing the Certificate holder's name, product description and the appropriate hazard and risk labels (see Annex A). They have a storage life of 12 months and are available in the pack sizes detailed in Table 4.

Table 4 Pack sizes

Component	Pack sizes (kg)
Stratashield	6 and 25
StrataShield Flex Thix	5 and 25
StrataShield Flex	6 and 25
StrataShield Solar reflective	6 and 25
StrataShield Catalyst	1
StrataPrime HP (Parts A + B)	5 and 18
Thixotropy Additive	1
StrataShield PU Solvent	4 and 20
StrataPrime Bonding Agent	4 and 20
StrataShield Cladseal	4 and 20
StrataShield Sealer Coat	4 and 20
Reinforcement Fabric 80 (0.3 x 100 m)	2.4
Reinforcement Fabric 80 (1.0 x 150 m)	8
StrataFleece GF (1.0 x 150 m)	22.5
StrataShield Porosity	4 and 20
StrataShield Porosity Flex	4 and 20
StrataShield Rapide Primer	Component A: 20, 4, Component B: 2, 0.4 kg

11.2 Delivery and site handing must be performed in accordance with the Certificate holder's instructions and this Certificate, including:

11.2.1 All containers must be stored under cover in a cool, dry, ventilated location away from other chemicals and any source of ignition.

11.2.2 Storage temperatures should preferably be below 20°C with all materials protected from sub-zero temperatures and direct sunlight.

11.2.3 Rolls of reinforcement fabric should be stored flat in a dry, clean environment and protected from moisture. The Certificate holder's product data sheets should be consulted for details.

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 and/or components under the *GB CLP Regulation* and the *CLP Regulation (EC) No 1272/2008 on the classification, labelling and packaging of substances and mixtures.* Users must refer to the relevant Safety Data Sheet.

Additional information on installation

General

A.1 The Certificate holder should be consulted on specifications for detailing around drains and other penetrations, but such advice is outside of the scope of this Certificate.

A.2 After use, all equipment must be cleaned with StrataShield PU Solvent. The Certificate holder's advice can be sought on the use of other cleaning products.

A.3 Installation should also be in accordance with the relevant clauses of Liquid Roofing and Waterproofing Association (LRWA) Note 7 - *Specifier Guidance for Flat Roof Falls, the Certificate holder's instructions and this certificate.*

Maintenance and Repair

A.4 In the event of the product being contaminated by oil, grease or other chemicals, the advice of the Certificate holder must be sought, but such advice is outside of the scope of this Certificate.

A.5 If repairs to the substrate are required, the Certificate holder's advice must be sought for suitable repair materials but such advice and materials are outside of the scope of this Certificate.

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 8579 : 2020 *Guide to the design of balconies and terraces*

BS EN 13501-1 : 2018 *Fire classification of construction products and building elements — Classification using data from reaction to fire tests*
BS EN 13501-5 : 2005 + A1 : 2009 *Fire classification of construction products and building elements — Classification using data from external fire exposure to roofs tests*
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 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 + A1 : 2015 Eurocode 1 : *Actions on structures — General actions — Snow loads*
NA to BS EN 1991-1-3 : 2003 + A1 : 2015 UK National Annex to Eurocode 1 : *Actions on structures — General actions — Snow loads*
BS EN 1991-1-4 : 2005 + A1 : 2010 Eurocode 1 : *Actions on structures — General actions — Wind actions*
NA to BS EN 1991-1-4 : 2005 + A1 : 2010 UK National Annex to Eurocode 1 : *Actions on structures — General actions — Wind actions*

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

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

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

EN 1931 : 2000 *Flexible sheets for waterproofing — Bitumen, plastic and rubber sheets for roof waterproofing — Determination of water vapour transmission properties*

EOTA Technical Report TR003: May 2004 *Determination of watertightness*

EOTA Technical Report TR004: May 2004 *Determination of the resistance to delamination*

EOTA Technical Report TR006: May 2004 *Determination of resistance to dynamic indentation*

EOTA Technical Report TR007: May 2004 *Determination of resistance to static indentation*

EOTA Technical Report TR008 :May 2004 *Determination of resistance to fatigue movement*

EOTA Technical Report TR 011: May 2004 *Exposure procedure for accelerated ageing by heat*

EOTA Technical Report TR012: May 2004 *Exposure procedure for accelerated ageing by hot water*

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.