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Agrément Certificate
13/5028
Product Sheet 1

SEALOFLEX PRIMA WATERPROOFING SYSTEM

SEALOFLEX PRIMA SOLVENT-FREE LIQUID ROOF WATERPROOFING SYSTEM

This Agrément Certificate Product Sheet(1) relates to the Sealoflex Prima Solvent-Free Liquid Roof Waterproofing System, a solvent-free, cold liquid-applied polyurethane roof waterproofing membrane reinforced with polyester fleece, for use as a waterproofing layer on flat, pitched or protected zero fall roofs, including green roofs, with limited access, and for waterproofing balconies, terraces and podiums.

(1) Hereinafter referred to as 'Certificate'.

CERTIFICATION INCLUDES:

- factors relating to compliance with Building Regulations where applicable
- factors relating to additional non-regulatory information where applicable
- independently verified technical specification
- assessment criteria and technical investigations
- design considerations
- installation guidance
- regular surveillance of production
- formal three-yearly review.

KEY FACTORS ASSESSED

Weathertightness — the system will resist the passage of moisture into the interior of a building (see section 6).

Properties in relation to fire — the system may enable a roof to be unrestricted under the national Building Regulations (see section 7).

Resistance to wind uplift — the adhesion of the system is sufficient to resist the effects of any likely wind suction acting on the roof and the effects of thermal or other minor movements likely to occur in practice (see section 8).

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

Resistance to penetration of roots — the system will adequately resist plant root penetration in green roofs and roof garden systems (see section 10).

Durability — under normal service conditions, the system will have an expected service life of at least 25 years (see section 12).

The BBA has awarded this Certificate to the company named above for the system described herein. This system 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 Third issue: 23 September 2021

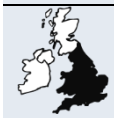
Originally certificated on 29 October 2013

Certificate amended on 1 December 2021 to update email address.

Hardy Giesler
Chief Executive Officer

Regulations

In the opinion of the BBA, the Sealoflex Prima Solvent-Free Liquid Roof Waterproofing System, if installed, used and maintained in accordance with this Certificate, can satisfy or contribute to satisfying the relevant requirements of the following Building Regulations (the presence of a UK map indicates that the subject is related to the Building Regulations in the region or regions of the UK depicted):



Building Regulations 2010 (England and Wales) (as amended)

Requirement:	**B4(1)**	**External fire spread**
Comment:		The system is restricted by this Requirement in some circumstances. See section 7.4 of this Certificate
Requirement:	**B4(2)**	**External fire spread**
Comment:		On a suitable substructure, the system may enable a roof to be unrestricted under this Requirement. See sections 7.1 to 7.3 of this Certificate.
Requirement:	**C2(b)**	**Resistance to moisture**
Comment:		The system will enable a roof to satisfy this Requirement. See section 6 of this Certificate.
Regulation:	**7(1)**	**Materials and workmanship**
Comment:		The system is acceptable. See section 12 and the *Installation* part 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 system satisfies the requirements of this Regulation. See sections 11.1 and 12 and the *Installation* part of this Certificate.
Regulation:	**9**	**Building standards applicable to construction**
Standard:	2.6	Spread to neighbouring buildings
Comment:		The system is restricted under clause 2.6.4(1)(2) of this Standard in some circumstances. See section 7.5 of this Certificate.
Standard:	2.8	Spread from neighbouring buildings
Comment:		When applied to a suitable substructure, the system may enable a roof to be unrestricted under this Standard, with reference to clause 2.8.1(1)(2). See sections 7.1 to 7.3 of this Certificate.
Standard:	3.10	Precipitation
Comment:		The system 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 6.1 of this Certificate.
Standard:	7.1(a)	Statement of sustainability
Comment:		The system 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 system 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(a)(i)(ii) (iii)(b)(i)**	**Fitness of materials and workmanship**
Comment:		The system is acceptable. See section 12 and the *Installation* part of this Certificate.
Regulation:	**28(b)**	**Resistance to moisture and weather**
Comment:		The system will enable a roof to satisfy the requirements of this Regulation. See section 6.1 of this Certificate.
Regulation:	**36(b)**	**External fire spread**
Comment:		On suitable substructures, the use of the system may enable a roof to be unrestricted under this Regulation. See sections 7.1 to 7.3 of this Certificate.

Construction (Design and Management) Regulations 2015
Construction (Design and Management) Regulations (Northern Ireland) 2016

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

See sections: 3 *Delivery and site handling* and 13 *General* (13.11 and 13.12) of this Certificate.

Additional Information

NHBC Standards 2021

In the opinion of the BBA, the Sealoflex Prima Solvent-Free Liquid Roof Waterproofing System, 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.*

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

Technical Specification

1 Description

1.1 The Sealoflex Prima Solvent-Free Liquid Roof Waterproofing System is a cold liquid-applied polyurethane coating reinforced with an embedded polyester fleece to provide a waterproofing membrane with a minimum dry film thickness of 2 mm.

1.2 The system components are:

- Sealoflex Prima Solvent-Free Coating — a two-component, solvent-free liquid-applied resin that cures to form a flexible waterproofing membrane
- Sealoflex Prima Reinforcing Fabric 165g — a polyester fleece for embedding into Sealoflex Prima Solvent-Free Coating to act as reinforcement. The fleece has nominal characteristics given in Table 1.

Table 1 Sealoflex Prima Reinforcing Fabric 165g

Characteristic (unit)	Value
mass per unit area ($g \cdot m^{-2}$)	165 ± 10%
tensile strength (N per 50 mm)	≥ 250
elongation at break (%)	≥ 40
roll length (m)	50
roll width (mm)	262.5, 1050

1.3 Ancillary items necessary for the installation of the system and included in this assessment are:

- Sealoflex Prima HP Primer — a two-component, solvent-free epoxy primer for use as a surface pre-treatment on concrete and other substrates prior to the application of Sealoflex Prima Solvent-Free Coating
- Sealoflex Prima 2-Part Primer — a two-component, solvent-free polyurethane primer for use on mastic asphalt, GRP, PVC, bituminous sheet, steel and plywood prior to the application of Sealoflex Prima Solvent-Free Coating
- Sealoflex Prima TPO Primer — a single-component primer for use on polyolefin plastic substrates prior to the application of Sealoflex Prima Solvent-Free Coating.

1.4 Other materials which are available for use with the system, but which are outside the scope of this Certificate include(1):

- Sealoflex Prima Speedshot — accelerator added to Sealoflex Prima Solvent-Free Coating to shorten the curing time, for use at lower temperatures (5 – 10°C)
- Sealoflex Prima HP5 Primer — a faster curing version of Sealoflex Prima HP Primer which can be used at temperatures down to 5°C prior to the application of Sealoflex Prima Solvent-Free Coating
- Sealoflex Walkway Compound – solvent free compound used above the finished waterproofing layer to receive Sealoflex Prima Coloured Quartz to create an anti-skid walkway
- Sealoflex Prima Natural Quartz (0.4 – 0.8 mm) — kiln-dried natural quartz, sprinkled into wet Sealoflex Prima HP5 Primer to produce a mechanical bond key for Sealoflex Prima Solvent-Free Coating
- Sealoflex Prima Coloured Quartz (0.4 – 0.8 mm) — kiln-dried quartz sand, available in black/grey colour, for scattering into the surface of Sealoflex Walkway Compound where increased resistance to foot traffic is required and to provide a non-slip surface
- Sealoflex Prima UV Clear — a UV-stable, transparent coating for sealing quartz aggregate
- Sealoflex Prima Joint Reinforcing Fabric — used to reinforce joints in fleece reinforcement when a flush joint detail is required
- Sealoflex Prima MEK Cleaner — to clean substrates, remove fat or oil from metals, clean Sealoflex Prima surfaces after a working break of more than 6 hours, clean existing membranes prior to re-treatment and clean tools post-work.

(1) Details of the specifications may be obtained from the Certificate holder.

1.5 The system is available in anthracite colour as standard.

1.6 Application rates and nominal weights of the system are subject to individual site surveys and are dependent on the porosity and surface finish of the substrate.

2 Manufacture

2.1 The system components are manufactured by a batch-blending process.

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

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

3 Delivery and site handling

3.1 The system components are delivered to site packaged as given in Table 2.

Table 2 Details of packaging

Component	Packaging	Weight (kg)
Sealoflex Prima Coating Components A and B composite packs	Outer plastic 2–part container with Component B in additional foil sachet	12.5
Sealoflex Prima Speedshot	Plastic bottle	0.6
Sealoflex Prima Reinforcing Fabric 165g (50 m rolls in various widths)	Roll	0.866 to 8.66
Sealoflex Prima 2-Part Primer Components A and B composite packs	Plastic container	5
Sealoflex Prima HP Primer Components A and B composite packs	Foil sachet	1
Sealoflex Prima HP Primer Components A and B composite packs	Metal can	10
Sealoflex Prima TPO Primer Components A and B composite packs	Metal can	0.5, 1 & 3
Sealoflex Prima Natural Quartz (0.4 mm - 0.8 mm)	Bag	25
Sealoflex Prima MEK Cleaner	Metal can	2, 9
Sealoflex Prima HP5 Primer Components A and B composite packs	Foil sachet	1
Sealoflex Prima HP5 Primer Components A and B composite packs	Metal can	10

3.2 All containers must be stored under cover in a cool, dry, ventilated location away from other chemicals and any source of ignition. Storage temperatures should preferably be below 20°C with all materials protected from sub-zero temperatures and direct sunlight. Each container carries a label bearing the manufacturer's name, product name and Health and Safety information. Rolls of Sealoflex Prima Reinforcing Fabric 165g should be stored flat in a dry, clean environment protected from moisture. When correctly stored in accordance with the Certificate holder's instructions, Sealoflex Prima Solvent-Free Coating will have a storage life of up to 12 months. The Certificate holder's product data sheets should be consulted for details.

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

Assessment and Technical Investigations

The following is a summary of the assessment and technical investigations carried out on the Sealoflex Prima Solvent-Free Liquid Roof Waterproofing System.

Design Considerations

4 General

4.1 The Sealoflex Prima Solvent-Free Liquid Roof Waterproofing System is satisfactory for use as a fully adhered waterproofing layer on, flat, pitched and protected zero fall roofs with limited access in:

- roof gardens (intensive) on flat roofs
- green roofs (extensive) on flat and pitched roofs
- biodiverse roofs
- brown roofs
- protected terraces/balconies with pedestrian access.

4.2 When treated with the appropriate primer in accordance with the Certificate holder's instructions, the Sealoflex Prima Solvent-Free Liquid Roof Waterproofing System is suitable for use on substrates of:

- acrylic glazing
- aluminium
- bituminous felts including polymer-modified hot- and cold-applied bitumens and bitumen emulsions
- concrete and concrete screeds cured sufficiently to achieve the required bond strength
- copper
- fibre-reinforced cement sheeting
- glass
- GRP
- lead
- lightweight concrete
- polyisocyanurate insulation board (PIR)(1)
- PVC
- stainless steel V2A
- steel to CP 143-10 : 1973
- tiles (glazed and unglazed)
- timber, including appropriate grade plywood (minimum BS EN 636-2 : 1997) and oriented strand board (OSB3) (BS EN 300 : 2006)
- zinc.

(1) The Certificate holder should be consulted for specific advice on board facing compatibility.

4.3 Decks to which the system is to be applied must comply with the relevant requirements of either BS 6229 : 2018 or BS 8217 : 2005 and, where appropriate, *NHBC Standards* 2021, Chapter 7.1

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

- roof garden (intensive) — a roof with a substantial layer of growing medium with planting that can include shrubs and trees, and generally accessible to pedestrians
- green roof (extensive) — a roof with a shallow layer of growing medium planted with low-maintenance plants such as mosses, sedums, grasses and some wildflower species
- biodiverse roof — a roof planted with the aim either to recreate the habitat that was lost when the building was erected or to enhance it
- brown roof — a roof with a growing medium selected to allow indigenous plant species to inhabit the roof over time; no deliberate planting is undertaken.

4.5 Limited access roofs are defined for the purpose of this Certificate as those subjected only to pedestrian traffic for maintenance of the roof covering, cleaning of gutters etc. Where pedestrian access is envisaged additional protection to the system must be provided as specified by the Certificate holder (see section 9).

4.6 Pedestrian access roofs are defined for the purpose of this Certificate as those allowing unrestricted foot traffic but not subject to vehicular traffic.

4.7 Flat roofs are defined for the purpose of this Certificate as those having a minimum finished fall of 1:80(1). For design purposes, twice the minimum finished fall should be assumed, unless a detailed analysis of the roof is available, including such features as overall and local deflection and direction of falls.

(1) *NHBC Standards* 2021 require a minimum fall of 1:60 for green roofs and roof gardens.

4.8 Pitched roofs are defined for the purpose of this Certificate as those having a fall greater than 1:6.

4.9 Zero fall roofs are defined for the purpose of this Certificate as those having a finished fall which can vary between 0 and 1:80(1). Reference should also be made to the appropriate clauses in Liquid Roofing and Waterproofing Association (LRWA) Note 7 – Specifier Guidance for Flat Roof Falls.

(1) NHBC Standards 2021 require a minimum fall of 1:60 for green roofs and roof gardens.

4.10 Imposed loads, dead loading and wind load specifications are calculated 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.

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

4.12 The drainage systems for zero fall roofs, green roofs, biodiverse roofs, brown roofs or roof gardens must be correctly designed, and the following points should be addressed:

- provision made for access for maintenance purposes
- for zero fall roofs, it is particularly important to identify the correct drainage points, to ensure that drainage is sufficient and effective
- dead loads for green roof, biodiverse roofs, brown roofs and roof gardens can increase if the drains become partially or completely blocked causing waterlogging of the drainage layer.

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

- as described in the relevant clause of BS 6229 : 2018, or
- the subject of a current BBA Certificate and used in accordance with, and within the scope of, that Certificate.

5 Practicability of installation

Installation of the system must only be carried out by installers trained and approved by the Certificate holder.

6 Weathertightness

The system will adequately resist the passage of moisture into the interior of a building and enable a roof to comply with the requirements of the national Building Regulations.

7 Properties in relation to fire

7.1 A system comprising 12 mm thick Superlux board primed with a coat of Sealoflex Prima 2-Part Primer, a coat of Sealoflex Prima Solvent-Free Coating embedded with a single layer of polyester fleece covered with a further coat of Sealoflex Prima Solvent-Free Coating and a layer of kiln dried quartz sand achieved an EXT.F.AA classification to BS 476-3 : 1958 and so is unrestricted with respect to proximity to a boundary by the documents supporting the national Building Regulations.

7.2 In the opinion of the BBA, a roof incorporating the system will be unrestricted under the national Building Regulations in the following circumstances:

- a roof garden covered with a drainage layer of gravel 100 mm thick and a soil layer 300 mm thick
- when protected by an inorganic covering (eg gravel or paving slabs) listed in the Annex of Commission Decision 2000/553/EC
- in irrigated green roofs, roof gardens, biodiverse roofs or brown roofs.

7.3 The designation of other specifications should be confirmed by reference to the requirements of the documents supporting the national Building Regulations.

7.4 In England and Wales, the system, when used in pitches of greater than 70°, excluding upstands, should not be used 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.

7.5 In Scotland, the system, when used in pitches of greater than 70°, excluding upstands, should not be used on buildings that have a storey of more than 11 m above ground level.

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

8 Resistance to wind uplift

8.1 The adhesion of the system to the materials listed in section 4.9 is sufficient to resist the effects of wind suction, elevated temperatures, thermal shock or minor movement likely to occur in practice.

8.2 When the system 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.

8.3 The growing medium used in roof gardens must not be of a type that will be removed or become delocalised due to wind scour.

8.4 It should be recognised that the type of plants used in roof gardens could significantly affect the wind loads experienced in service.

9 Resistance to mechanical damage

9.1 The system can accept, without damage, the limited foot traffic and light concentrated loads associated with installation and maintenance. However, reasonable care should be taken to avoid puncture of the system by sharp objects or concentrated loads. Where traffic in excess of this is envisaged, such as for maintenance of lift equipment or in pedestrian areas, additional protection must be used.

9.2 The system is capable of accepting minor structural movement while remaining weathertight.

10 Resistance to root penetration

The system, including joints, is resistant to root penetration and can be used in a roof waterproofing system for roof gardens and green roofs.

11 Maintenance

11.1 The system must be the subject of six-monthly inspections and maintenance in accordance with BS 6229 : 2018, Chapter 7, to ensure continued satisfactory performance.

11.2 Guidance is available within the latest edition of *The GRO Green Roof Code – Green Roof Code of Best Practice for the UK.*

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

11.4 In the event of the system being contaminated by oil, grease or other chemicals, the advice of the Certificate holder must be sought.

12 Durability

Under normal service conditions, the system will provide a durable waterproof covering with a service life of at least 25 years.

Installation

13 General

13.1 Site checks include:

- prior to application — suitability of substrate and application conditions
- during application — evenness and exclusion of bubbles
- on completion — inspection to ensure that coating has fully cured and is fully adhered.

13.2 The system must be applied in accordance with the Certificate holder's instructions and this Certificate. Work must not be carried out if rain is imminent. The ambient temperature at the time of laying must be between 5 and 35°C and the relative humidity below 85%.

13.3 The temperature of the substrate should be at least 3°C above the dew point and rising.

13.4 Substrates to which the coating is to be applied must be dry (residual moisture content of less than 5% in the upper 20 mm), clean and free from loose particles, paint, grease and oil or other contaminants which may affect the adhesion of the system.

13.5 Defects in the substrate should be suitably prepared prior to application of the system, in accordance with the Certificate holder's instructions.

13.6 It is recommended that membranes installed for green roof installations are visually inspected and tested electronically for waterproofing integrity prior to the green roof system being installed, in accordance with *NHBC Standards* 2021, Chapter 7.1, Clause 7.1.9.

13.7 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 system in accordance with the Certificate holder's instructions and should be cleaned with Sealoflex Prima MEK Cleaner.

13.8 Adhesion checks must be carried out to ensure that the system is compatible with the existing surfaces. The Certificate holder must be consulted for details of suitable test methods and requirements.

13.9 The substrate must be primed with the appropriate primer in accordance with the Certificate holder's instructions.

13.10 If work is interrupted for periods in excess of 6 hours, surfaces should be cleaned with Sealoflex Prima MEK Cleaner prior to resumption of work.

13.11 All tools and spraying equipment are cleaned with Sealoflex Prima MEK Cleaner on completion of work.

13.12 The NHBC requires that the waterproofing layers, once installed, are inspected in accordance with NHBC Standards 2021, Chapter 7.1, Clause 7.1.12, and undergo an appropriate integrity test, where required. Any damage to the membrane is repaired in accordance with section 15 of this Certificate and reinspected.

14 Procedure

14.1 Prior to application to the main roof area, any protrusions and upstands must be treated with Sealoflex Prima Reinforcement Fabric 165g saturated with Sealoflex Prima Solvent-Free Coating which has been mixed to ensure homogeneity in accordance with the Certificate holder's instructions for standard details.

14.2 The 2.5 kg foil-packed Sealoflex Prima 2-Part Primer incorporates both components separated from each other by a rubber cord. The material is mixed firstly by thoroughly kneading component A. The rubber cord is removed releasing component B and the contents kneaded together quickly for at least one minute or until a streak-free homogeneous mixture is obtained.

14.3 Materials packaged in tins must be thoroughly stirred. Component B is decanted into Component A and thoroughly mixed using a slow-speed drill until streaks are not visible. The mixture is transferred into another clean container and stirred again for approximately one minute.

14.4 If accelerated curing reaction time is required, Sealoflex Prima Speedshot is added in accordance with the volumes given in the Certificate holder's technical data sheet. The accelerator is added to the blended Sealoflex Prima Solvent-Free Coating and mixed until streaks are not visible. If the ambient temperature is +10°C or lower, components should be stored and mixed at room temperature.

14.5 Approximately two-thirds of the mixed pack is applied to the substrate at a minimum coverage rate of 2 $kg \cdot m^{-2}$ using a roller. Sealoflex Prima Reinforcement Fabric 165g is rolled into the wet resin and pressed to release any trapped air.

14.6 The remaining resin is immediately applied to the treated surface, wet-on-wet, until complete saturation of the fleece is achieved. The minimum total coverage rate for Sealoflex Prima Solvent-Free coating application will be 3 $kg \cdot m^{-2}$. The minimum dry coating thickness is 2 mm.

14.7 The fleece sheets should have end and side overlaps of at least 50 mm, and sufficient resin must remain beneath the fleece to maintain the physical properties of the system.

14.8 Exposed applications on balconies, terraces and podiums subject to pedestrian traffic should be protected with other finishes, including Sealoflex Prima Coloured Quartz (0.4 – 0.8 mm), to provide a non-slip surface.

14.9 Other materials can be used for hard landscaping applications. These include:

- paving slabs on spacers
- paving tiles fully bedded.

14.10 The system may be overlaid with hot-rolled asphalt after a period of curing.

14.11 The Certificate holder must be consulted for wear course and surface finishing procedures.

15 Repair

15.1 Any damage to the system must be repaired as soon as possible to ensure that the integrity of the waterproofing is maintained.

15.2 The damaged waterproofing membrane is cut back to bonded material. The exposed substrate and adjacent bonded waterproofing (at least 100 mm) is cleaned and the existing Sealoflex Prima Solvent-Free Coating lightly abraded with 40 grit media and wiped with Sealoflex Prima MEK Cleaner.

Overlapped repair

15.3 The substrate is primed using the appropriate compatible primer and Sealoflex Prima Solvent-Free coating is reinstated with the Sealoflex Prima Reinforcement Fabric, ensuring a 100 mm minimum overlap with the existing membrane.

Hidden repair

15.4 Sealoflex Prima Reinforcement Fabric is laid over the repair area, the shape of the repair is traced, and the fleece is cut to ensure that it butts with the existing sound material.

15.5 The substrate is primed with the correct compatible primer and the system is reinstated, ensuring a butt-joint with the existing membrane.

15.6 Sealoflex Prima Reinforcement Fabric is laid over the butt-joint in the repair ensuring that the strip is fully saturated with Sealoflex Prima Solvent-Free Coating.

16 Tests

16.1 Tests were conducted on samples of the Sealoflex Prima Solvent-Free Liquid Roof Waterproofing System and the results were assessed to determine:

- tensile strength and elongation
- water vapour permeability
- water absorption
- watertightness
- tensile bond strength on concrete, glass-faced PU insulation, GRP, mastic asphalt, plywood, PVC membrane, steel
- dynamic indentation
- static indentation
- resistance to fatigue cycling
- resistance to crack-bridging
- resistance to low temperatures
- resistance to high temperatures
- heat ageing at 80°C for 200 days
- resistance to UV ageing
- resistance to water exposure
- the effect of application temperatures
- wind uplift resistance before and after thermal shock.

16.2 Additional characterisation tests were carried out on the system and its component parts.

17 Investigations

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

17.2 An evaluation was made of data relating to the fire performance of the system.

17.3 An assessment was made of the results of tests leading to the issue of ETA-03/0044.

17.4 Data relating to the bond strength of the system to concrete, mastic asphalt, plywood, steel, glass-faced PU Insulation, GRP and PVC substrates were assessed.

17.5 Data relating to resistance to wear and slip resistance were assessed.

17.6 Data relating to root resistance were assessed.

Bibliography

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

BS 8217 : 2005 *Reinforced bitumen membranes for roofing — Code of practice*

BS 8218 : 1998 *Code of practice for mastic asphalt roofing*

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 + A2 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*

CP 143-10 : 1973 *Code of practice for sheet roof and wall coverings — Galvanized corrugated steel — Metric units*

BS EN 300 : 2006 *Oriented strand boards (OSB) — Definitions, classification and specifications*

BS 476-3 : 1958 *Fire tests on building materials and structures. External fire exposure roof test*

BS EN 636-2 : 1997 *Plywood — Specifications — Requirements for plywood for use in humid conditions.*

EAD 030350-00-0404 : 2018 *Liquid Applied Roof Waterproofing Kits*

18 Conditions

18.1 This Certificate:

- relates only to the product/system that is named and described on the front page
- is issued only to the company, firm, organisation or person named on the front page – no other company, firm, organisation or person may hold or claim that this Certificate has been issued to them
- is valid only within the UK
- has to be read, considered and used as a whole document – it may be misleading and will be incomplete to be selective
- is copyright of the BBA
- is subject to English Law.

18.2 Publications, documents, specifications, legislation, regulations, standards and the like referenced in this Certificate are those that were current and/or deemed relevant by the BBA at the date of issue or reissue of this Certificate.

18.3 This Certificate will remain valid for an unlimited period provided that the product/system and its manufacture and/or fabrication, including all related and relevant parts and processes thereof:

- are maintained at or above the levels which have been assessed and found to be satisfactory by the BBA
- continue to be checked as and when deemed appropriate by the BBA under arrangements that it will determine
- are reviewed by the BBA as and when it considers appropriate.

18.4 The BBA has used due skill, care and diligence in preparing this Certificate, but no warranty is provided.

18.5 In issuing this Certificate the BBA is not responsible and is excluded from any liability to any company, firm, organisation or person, for any matters arising directly or indirectly from:

- the presence or absence of any patent, intellectual property or similar rights subsisting in the product/system or any other product/system
- the right of the Certificate holder to manufacture, supply, install, maintain or market the product/system
- actual installations of the product/system, including their nature, design, methods, performance, workmanship and maintenance
- any works and constructions in which the product/system is installed, including their nature, design, methods, performance, workmanship and maintenance
- any loss or damage, including personal injury, howsoever caused by the product/system, including its manufacture, supply, installation, use, maintenance and removal
- any claims by the manufacturer relating to CE marking.

18.6 Any information relating to the manufacture, supply, installation, use, maintenance and removal of this product/system which is contained or referred to in this Certificate is the minimum required to be met when the product/system is manufactured, supplied, installed, used, maintained and removed. It does not purport in any way to restate the requirements of the Health and Safety at Work etc. Act 1974, or of any other statutory, common law or other duty which may exist at the date of issue or reissue of this Certificate; nor is conformity with such information to be taken as satisfying the requirements of the 1974 Act or of any statutory, common law or other duty of care.