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Agrément Certificate

14/5147

Product Sheet 1 Issue 5

SIKA LIQUID PLASTICS ROOF SYSTEMS

SIKA LIQUID PLASTICS BUILT-UP ROOF SYSTEMS

This Agrément Certificate Product Sheet⁽¹⁾ relates to the Sika Liquid Plastics Built-Up Roof Systems, comprising adhesives, air and vapour control layers (AVCLs), insulation, carrier membranes and one-component, moisture-activated, reinforced aliphatic polyurethane liquid-applied roof waterproofing membranes, for use as waterproofing and insulation systems on flat and pitched roofs with limited access.

(1) Hereinafter referred to as 'Certificate'.

The assessment includes

Product factors:

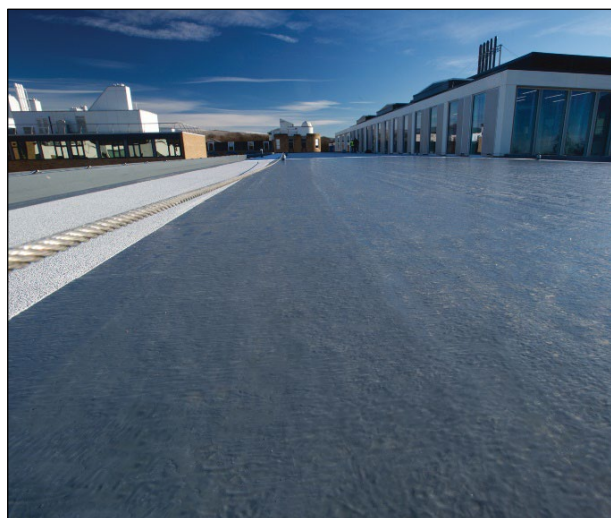
- compliance with Building Regulations
- compliance with additional regulatory or non-regulatory information where applicable
- evaluation against technical specifications
- assessment criteria and technical investigations
- uses and design considerations

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 systems described herein. These systems have been assessed by the BBA as being fit for their intended use provided they are installed, used and maintained as set out in this Certificate.

On behalf of the British Board of Agrément

Date of Fifth issue: 3 October 2023
Originally certificated on 13 August 2014

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. 0357).

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 the Sika Liquid Plastics Built-Up Roof 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 systems are 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 use of the systems may enable a roof to be unrestricted under this Requirement. See section 2 of this Certificate. |
| Requirement: C2(b) | Resistance to moisture |
| Comment: | The systems will enable a roof to satisfy this Requirement. See section 3 of this Certificate. |
| Requirement: C2(c) | Resistance to moisture |
| Comment: | The systems can contribute to a roof satisfying this Requirement. See section 3 of this Certificate. |
| Requirement: L1(a)(i) | Conservation of fuel and power |
| Comment: | The systems can contribute to satisfying this Requirement. See section 6 of this Certificate. |
| Regulation: 7(1) | Materials and workmanship |
| Comment: | The systems are acceptable. See sections 8 and 9 of this Certificate. |
| Regulation: 25B | Nearly zero-energy requirements for new buildings |
| Regulation: 26 | CO₂ emission rates for new buildings |
| Regulation: 26A | Fabric energy efficiency rates for new dwellings (applicable to England only) |
| Regulation: 26A | Primary energy rates for new buildings (applicable to Wales only) |
| Regulation: 26B | Fabric performance values for new dwellings (applicable to Wales only) |
| Regulation: 26C | Target primary energy rates for new buildings (applicable to England only) |
| Regulation: 26C | Energy efficiency rating (applicable to Wales only) |
| Comment: | The systems can contribute to satisfying these Regulations; however, compensating fabric/services measures may be required. See section 6 of this Certificate. |



The Building (Scotland) Regulations 2004 (as amended)

| | |
|----------------------------|---|
| Regulation: 8(1)(2) | Fitness and durability of materials and workmanship |
| Comment: | The use of the systems satisfies the requirements of this Regulation. See sections 8 and 9 of this Certificate. |
| Regulation: 9 | Building standards – construction |
| Standard: | 2.6 Spread to neighbouring buildings |
| Standard: | 2.7 Spread on external walls |

| | | |
|--------------------|-----------|---|
| Comment: | | The systems are restricted under clauses 2.6.4 ⁽¹⁾⁽²⁾ and 2.7.2 ⁽¹⁾⁽²⁾ of these Standards in some circumstances. See section 2 of this Certificate. |
| Standard: | 2.8 | Spread from neighbouring buildings |
| Comment: | | When applied to suitable substructures, the systems may enable a roof to be unrestricted under clause 2.8.1 ⁽¹⁾⁽²⁾ of this Standard. See section 2 of this Certificate. |
| Standard: | 3.10 | Precipitation |
| Comment: | | The systems can contribute to a roof satisfying this Standard, with reference to clauses 3.10.1 ⁽¹⁾⁽²⁾ and 3.10.7 ⁽¹⁾⁽²⁾ . See section 3 of this Certificate. |
| Standard: | 3.15 | Condensation |
| Comment: | | The systems can contribute to a roof satisfying this Standard, with reference to clauses 3.15.1 ⁽¹⁾⁽²⁾ , 3.15.3 ⁽¹⁾⁽²⁾ , 3.15.4 ⁽¹⁾⁽²⁾ , 3.15.5 ⁽¹⁾⁽²⁾ , 3.15.6 ⁽¹⁾⁽²⁾ and 3.15.7 ⁽¹⁾⁽²⁾ . See section 3 of this Certificate. |
| Standard: | 6.1(b) | Energy demand and carbon dioxide emissions |
| Standard: | 6.2 | Building insulation envelope |
| Comment: | | The systems can contribute to satisfying the requirements of these Standards, with reference to clauses, or parts of, 6.1.2 ⁽²⁾ , 6.1.6 ⁽¹⁾ , 6.2.1 ⁽¹⁾⁽²⁾ , 6.2.3 ⁽¹⁾ , 6.2.4 ⁽²⁾ , 6.2.5 ⁽²⁾ , 6.2.6 ⁽¹⁾ , 6.2.7 ⁽¹⁾ , 6.2.8 ⁽¹⁾⁽²⁾ , 6.2.9 ⁽¹⁾⁽²⁾ , 6.2.10 ⁽¹⁾⁽²⁾ , 6.2.11 ⁽¹⁾⁽²⁾ and 6.2.12 ⁽²⁾ . See section 6 of this Certificate. |
| Standard: | 7.1(a)(b) | Statement of sustainability |
| Comment: | | The systems 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. In addition, the systems can contribute to a construction meeting a higher level of sustainability as defined in this Standard. See section 6 of this Certificate. |
| Regulation: | 12 | Building standards – conversions |
| Comment: | | Comments in relation to the systems 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 systems are acceptable. See sections 8 and 9 of this Certificate. |
| Regulation: | 28(b) | Resistance to moisture and weather |
| Comment: | | The systems satisfy the requirements of this Regulation. See section 3 of this Certificate. |
| Regulation: | 29 | Condensation |
| Comment: | | The systems can contribute to a roof satisfying this Regulation. See section 3 of this Certificate. |
| Regulation: | 36(a) | External fire spread |
| Comment: | | The systems are restricted by this Regulation in some circumstances. See section 2 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 the requirements of this Regulation. See section 2 of this Certificate. |

| | | |
|--------------------|-----------------|---|
| Regulation: | 39(a)(i) | Conservation measures |
| Comment: | | The system can satisfy or contribute to satisfying this Regulation. See section 6 of this Certificate. |
| Regulation: | 40(2) | Target carbon dioxide emissions rate |
| Regulation: | 43(1)(2) | Renovation of thermal elements |
| Regulation: | 43B | Nearly zero-energy requirements for new buildings |
| Comment: | | The systems can satisfy or contribute to satisfying these Regulations. See section 6 of this Certificate. |

Additional Information

NHBC Standards 2023

In the opinion of the BBA, the Sika Liquid Plastics Built-Up Roof Systems (Decothane Ultra 15 Roof Coating System; Decothane Ultra 20 Roof Coating System; Decothane Ultra 25 Roof Coating System; and Sikalastic -625N 20 Roof Coating 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*.

In addition, in the opinion of the BBA, the systems 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 systems.

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

Fulfilment of Requirements

The BBA has judged the Sika Liquid Plastics Built-Up Roof Systems to be satisfactory for use as waterproofing and insulation systems on flat and pitched roofs with limited access, as described in this Certificate.

ASSESSMENT

Product description and intended use

The Certificate holder provided the following description for the systems under assessment. The Sika Liquid Plastic Built-Up Roof Systems consist of:

- Decothane Ultra Base Coat and Decothane Ultra — a single-component, liquid-applied, moisture-activated, aliphatic polyurethane membrane (the subject of BBA Certificate 14/5158) used to produce the Decothane Ultra 15-, 20-, and 25-Roof Coating Systems (see Table 12)
- Sikalastic -625N a single-component fully reinforced, liquid-applied, moisture-activated, aliphatic polyurethane membrane (the subject of BBA Certificate 16/5294) used to produce the Sikalastic -625N 20 Roof Coating System
- Sika Reemat Premium Reinforcing Mat — a non-woven glass fibre reinforcing mat, for use as a reinforcement embedded in the polyurethane while still wet, and available for use in strips to cover individual cracks, joints or details
- Sikatherm — a flat or tapered polyisocyanurate foam insulation board with glass fibre facing on both sides
- Sika-approved carrier membranes — multi-layer, self-adhesive membranes with a minimum thickness of 0.6 mm, for use over the insulation and beneath the system
- Sika-approved AVCLs and other ancillaries such as S-Vap Jointing Tapes. AVCLs include S-Vap 5000E SA for adhered systems, and S-Vap 500E for mechanically fixed systems
- SikaRoof Adhesive-200 — a humidity-hardening, one-pack polyurethane adhesive to bond insulation boards to existing waterproofing and Sika-approved AVCLs
- Sika C-250 Spray — a moisture-curing PU-based spray insulation adhesive in a pressurised canister system
- Sika Mechanical Fastenings — for use in fastening the insulation boards
- Sika Bonding Primer — a two-part primer for the preparation of porous substrates
- Sikalastic Metal Primer — a two-part primer for the treatment of previously untreated metal surfaces and spot priming of areas of corroded metal after preparation
- SikaRoof Primer-600/610 Spray — for use in preparing substrates prior to installation of the self-adhesive membranes
- Skid-Inhibiting Grit or Deco-Mineralised Grit — to provide a skid-inhibiting finish to the coating.

The liquid-applied waterproofing systems are applied to the coverage rates given in Table 1.

Table 1 Waterproofing build-up and coverage rates (litres per m²)

| System | Layer | Coverage rates (litres per m ²) ⁽¹⁾ |
|--------------------|---------------------------|--|
| Decothane Ultra 15 | Decothane Ultra Base Coat | 1.00 |
| | Reinforcement | — |
| | Decothane Ultra | 0.75 |
| Decothane Ultra 20 | Decothane Ultra Base Coat | 1.00 |
| | Reinforcement | — |
| | Decothane Ultra | 1.00 |
| Decothane Ultra 25 | Decothane Ultra Base Coat | 1.00 |
| | Reinforcement | — |
| | Decothane Ultra | 0.80 |
| | Decothane Ultra | 0.80 |
| Sikalastic -625N | Sikalastic -625N | 1.00 |
| | Reinforcement | — |
| | Sikalastic -625N | 1.00 |

(1) The stated coverage rates are for smooth substrates only.

The waterproofing components of the systems have the nominal characteristics given in Table 2.

Table 2 Nominal characteristics of liquid-applied components

| Characteristic (unit) | Decothane Ultra | Decothane Ultra Base Coat | Sikalastic -625N |
|------------------------------------|---|---------------------------|----------------------------------|
| Drying time at 22°C/52% RH (hours) | | | |
| touch time | 1 | 1.25 | 1.5 |
| through cure | 12 | 2.5 | 12.00 |
| Standard colours | White, Dove Grey, Shale Grey and Slate Grey | Oxide Red | White, Slate Grey and Light Grey |

The levels of Use Categories in accordance with EAD 030350-00-0402, from ETAs 20/1021 and 20/1023, are given in Table 3 for the four systems.

Table 3 Levels of Use Categories

| Use Categories | Decothane Ultra 15 | Decothane Ultra 20 | Decothane Ultra 25 | Sikalastic -625N |
|---------------------------------------|--|--|--|--|
| ETA | 20/1021 | 20/1021 | 20/1021 | 20/1023 |
| External fire performance | B _{ROOF} (t1) B _{ROOF} (t4) | B _{ROOF} (t1) B _{ROOF} (t4) | B _{ROOF} (t1) B _{ROOF} (t4) | B _{ROOF} (t1) B _{ROOF} (t4) |
| Reaction to fire | Euroclass E | Euroclass E | Euroclass E | Euroclass E |
| Categorisation by working life | W2 (10 years) | W3 (25 years) | W3 (25 years) | W3 (25 years) |
| Categorisation by climatic zone | M (moderate) S (severe) | M (moderate) S (severe) | M (moderate) S (severe) | M (moderate) S (severe) |
| Categorisation by imposed loads | | | | |
| most compressible substrate | P2 | P3 | P3 | P3 |
| least compressible substrate | P4 | P4 | P4 | P4 |
| Categorisation by roof slope | S1 (<5%) to S4 (>30%) | S1 (<5%) to S4 (>30%) | S1 (<5%) to S4 (>30%) | S1 (<5%) to S4 (>30%) |
| Categorisation by surface temperature | | | | |
| lowest | TL3 (-20°C) | TL3 (-20°C) | TL4 (-30°C) | TL3 (-30°C) |
| highest | TH4 (90°C) | TH4 (90°C) | TH4 (90°C) | TH3 (90°C) |

The AVCLs are supplied in rolls and are manufactured with the nominal characteristics given in Table 4.

Table 4 Nominal characteristics of the AVCLs

| Characteristic (unit) | S- Vap 500E | S-Vap 5000E SA |
|--|-------------|----------------|
| Thickness (mm) | 0.15 | 0.60 |
| Width (m) | 5.00 | 1.08 |
| Length (m) | 25 | 30 |
| Mass per unit area (kg·m ⁻²) | 0.15 | 0.60 |

Sikatherm is a flat or tapered polyisocyanurate foam insulation board with a glass fibre facing on both sides. It has the nominal characteristics given in Table 5.

Table 5 Sikatherm nominal characteristics

| Characteristic (unit) | Value |
|---------------------------------------|------------------------------|
| Length (mm) | 1200 |
| Width (mm) | 600 |
| Thickness (mm) | 30 to 160 in 5 cm increments |
| Core density (kg·m ⁻³) | 32 |
| Compressive stress at 10% deformation | CS (10\Y)150 |

Ancillary items

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

- Edge trim A
- Edge trim B
- Edge trim C
- Drip trim D
- Drip trim E
- Edge trim E
- Drip trim F
- Edge trim F
- Internal corner trim
- External corner trim
- Counter flashing
- Termination bar.

Applications

Sika Liquid Plastics Built-Up Roof Systems are satisfactory for use as liquid-applied waterproofing and bonded insulation systems on flat and pitched roofs with limited access.

The systems are suitable for use on decks and substrates of concrete, steel, timber, plywood, woodwool slab, bituminous membranes, asphalt and some approved single ply membranes.

Definitions for products and applications inspected

- Limited access roofs are those subjected only to pedestrian traffic for maintenance of the roof covering, cleaning of gutters, etc.
- Flat roofs are those having a minimum finished fall of 1:80.
- Pitched roofs are those having falls in excess of 1:6.

Product assessment – key factors

The systems were assessed for the following key factors, and the outcome of the assessments is shown below. Conclusions relating to the Building Regulations 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 CE N/TS 1187 : 2012, Test 4 and classified to EN 13501-5 : 2016 the systems given in Tables 6a and 6b of this Certificate achieved B_{ROOF}(t4) for slopes below 10°.

Table 6a External fire spread tests

| Designation | Substrate | Primer | AVCL | Adhesive | Insulation |
|------------------------|---------------|---------------------------|----------------|-----------------------|---------------------|
| B _{ROOF} (t4) | 18 mm plywood | - | S-Vap 5000E SA | SikaRoof Adhesive-200 | 80 mm Sikatherm PIR |
| B _{ROOF} (t4) | 18 mm plywood | - | S-Vap 5000E SA | SikaRoof Adhesive-200 | 80 mm Sikatherm PIR |
| B _{ROOF} (t4) | 12 mm plywood | SikaRoof Primer-610 Spray | S-Vap 5000E SA | Sika C-250 Spray | 80 mm Sikatherm PIR |
| B _{ROOF} (t4) | 10 mm plywood | SikaRoof Primer-610 Spray | S-Vap 5000E SA | - | 80 mm Sikatherm PIR |
| B _{ROOF} (t4) | 10 mm plywood | SikaRoof Primer-610 Spray | S-Vap 5000E SA | - | 80 mm Sikatherm PIR |

Table 6b External fire spread tests (build ups continued)

| Primer | Underlay | Waterproofing | Reinforcement | Waterproofing | Test & Classification Reports |
|----------------------------|--------------------------------|--|-------------------------------------|---|--|
| SikaRoof Primer-600 Spray | Sika-approved carrier membrane | Decothane Ultra (1 coat, 1.0 l·m ⁻²) | Sika Reemat Premium Reinforcing Mat | Decothane Ultra (2 coats of 0.7 l·m ⁻²) | 336141 and WF 336202 ⁽¹⁾ |
| SikaRoof Primer-600 Spray | Sika-approved carrier membrane | Decothane Ultra (1 coat, 1.0 l·m ⁻²) | Sika Reemat Premium Reinforcing Mat | Decothane Ultra (1 coat, 0.5 l·m ⁻²) | 336142 and WF 336203 ⁽²⁾ |
| Sika Roof Primer-610 Spray | S-Vap 5000E SA | Sikalastic -625N (1 coat, 0.8 mm) | Sika Reemat Premium Reinforcing Mat | Sikalastic -625N (1 coat, 0.7 mm) | 19823B and 19823C ⁽³⁾ |
| SikaRoof Primer-610 Spray | S-Vap 5000E SA | Decothane Ultra Base Coat 0.75 l·m ⁻²) | Sika Reemat Premium Reinforcing Mat | Decothane Ultra (1 coat, 0.75 l·m ⁻²) | Q100348-1001 and Q100348-1002 ⁽⁴⁾ |
| SikaRoof Primer-610 Spray | S-Vap 5000E SA | Decothane Ultra Base Coat (1.0 l·m ⁻²) | Sika Reemat Premium Reinforcing Mat | Decothane Ultra (2 coats of 0.8 l·m ⁻²) | Q100348-1004 and Q100348-1005 ⁽⁵⁾ |

(1)(2) Issued by Exova Warringtonfire. Copies of the reports are available from the Certificate holder, on request.

(3) Issued by Warringtonfire. Copies of the reports are available from the Certificate holder, on request.

(4)(5) Issued by BRE. Copies of the reports are available from the Certificate holder, on request.

2.1.2 On the basis of data assessed, the systems listed in Table 6 above 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.

2.1.3 The classification 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 declared a reaction to fire classification of Class E to EN 13501-1: 2007⁽¹⁾ and EN 13501-1 : 2018⁽²⁾.

(1) Classification report reference WF 406986 and WF 406987 conducted by Exova Warringtonfire. The reports are available from the Certificate holder.

(2) Classification report reference WF 418126 conducted by Warringtonfire. The report is available from the Certificate holder.

2.2.2 On the basis of data assessed, the systems will be restricted in use under the documents supporting the national Building Regulations.

2.2.3 In England, the systems, when used in pitches greater than 70°, excluding upstands, must not be used less than 1 m from a relevant 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 must also be included in calculations of unprotected areas.

2.2.4 In Wales and Northern Ireland, the systems, when used in pitches greater than 70°, excluding upstands, must not be used less than 1 m from a relevant boundary, or on other buildings more than 18 m in height. Restrictions apply on assembly and recreation buildings. These constructions must also be included in calculations of unprotected areas.

2.2.5 In Scotland, the systems, when used in pitches greater than 70°, excluding upstands, must not be used on buildings less than 1 m from a relevant boundary or with a storey 11 m or more above the ground level or on some entertainment, assembly, hospital and residential care buildings. These constructions must also be included in calculations of unprotected areas.

3 Hygiene, health and the environment

Data were assessed for the following characteristics.

3.1 Weathertightness

3.1.1 Results of weathertightness tests are given in Table 7.

| <i>Table 7 Results of weathertightness tests</i> | | | |
|---|--|-----------------------------------|----------------------|
| Product assessed | Assessment method | Requirement | Result |
| Decothane Ultra 15 | Water vapour transmission properties to BS EN 1931 : 2000 (Method B) | Value achieved | $s_d = 4.44$ |
| Decothane Ultra 15 | Watertightness to EOTA TR 003 : 2004 at 1 m water pressure for 24 hours | No leakage | Pass |
| Decothane Ultra 15 | Resistance to delamination to EOTA TR 004 : 2004 On concrete: On mastic asphalt: On galvanised steel: | ≥ 50 kPa | Pass Pass Pass |
| Sikalastic -625N | Water vapour transmission properties to BS EN 1931 : 2000 (Method B) | Value achieved | $s_d = 2.82$ m |
| Sikalastic -625N | Watertightness to EOTA TR 003 : 2004 at 1 m water pressure for 24 hours | No leakage | Pass |
| Sikalastic -625N | Resistance to delamination to EOTA TR 004 : 2004 On concrete: On mastic asphalt: | ≥ 50 kPa | Pass Pass |
| S-Vap 5000E SA bonded to concrete | Resistance to delamination to EOTA TR 004 : 2004 | ≥ 50 kPa | Pass |
| Sika-approved carrier membrane bonded to concrete | Resistance to delamination to EOTA TR 004 : 2004 | ≥ 50 kPa | Pass |
| S-Vap 5000E SA bonded to concrete | Resistance to peel from the support to MOAT 64 : 2001 | ≥ 25 N·(50 mm) ⁻¹ | Pass |

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

3.1.3 Based on data assessed, the insulation boards, when installed on suitable roof decks, using appropriate fixing methods, can adequately transfer maintenance traffic loads and negative and positive (suction and pressure) wind loads to the roof deck. Care must be taken to ensure that this loading is not exceeded during construction work.

3.2 Water vapour permeability

3.2.1 Results of water vapour permeability tests are given in Table 8.

| Product assessed | Assessment method | Requirement | Result |
|------------------|---|----------------|------------------------|
| S-Vap 5000E SA | Watertightness to DIN EN 1928 : 2000 | No leakage | Pass |
| S-Vap 5000E SA | Water vapour permeability to DIN EN 1931 : 2000 (Method B) | Value achieved | $s_d = > 1800$ m |
| S-Vap 500E | Watertightness to EN 1928 : 2000 | No leakage | Pass |
| S-Vap 500E | Water vapour permeability to EN 1931 : 2000 (Method B) | Value achieved | $s_d = 100$ m (+/- 25) |

3.2.2 Roofs incorporating either S-Vap 500E or S-Vap 5000E SA will adequately limit the risk of interstitial condensation when they are designed and constructed in accordance with BS 5250 : 2021. Additional guidance is available in BRE Report BR 262 : 2002.

3.3 Condensation

3.3.1 The BBA has assessed the systems for the risk of condensation and the following factors must be implemented.

3.3.2 For the purposes of assessing the risk of interstitial condensation, the Sikatherm boards' insulation core vapour resistivity may be taken as approximately $300 \text{ MN}\cdot\text{s}\cdot\text{g}^{-1}\cdot\text{m}^{-1}$. The vapour resistance of the glass tissue may be taken as $3 \text{ MN}\cdot\text{s}\cdot\text{g}^{-1}$ ($s_d = 0.6$ m). The vapour resistance of the S-Vap 500E and S-Vap 5000E SA AVCLs may be taken as $500 \text{ MN}\cdot\text{s}\cdot\text{g}^{-1}$ and $9,000 \text{ MN}\cdot\text{s}\cdot\text{g}^{-1}$, respectively.

3.3.3 To minimise moisture entering the roof, an AVCL should be used with sealed and lapped joints and be turned up around the insulation and linked to the waterproofing finish.

3.3.4 In England and Wales, roofs will adequately limit the risk of surface condensation when the thermal transmittance (U value) does not exceed $0.35 \text{ W}\cdot\text{m}^{-2}\cdot\text{K}^{-1}$ at any point and the junctions with other elements are designed in accordance with Section 6.1.4.

3.3.5 In Scotland, roofs will adequately limit the risk of surface condensation when the thermal transmittance (U value) does not exceed $1.2 \text{ W}\cdot\text{m}^{-2}\cdot\text{K}^{-1}$ at any point. Guidance may be obtained from BS 5250 : 2021 and BRE Report BR 262 : 2002.

3.4 Resistance to mechanical damage

3.4.1 Results of resistance to mechanical damage tests are given in Table 9.

Table 9 Results of resistance to mechanical damage tests

| Product assessed | Assessment method | Requirement | Result |
|--------------------|--|--------------------|--|
| Decothane Ultra 15 | Tensile properties to EN ISO 527-4 : 1997 Control: Cured at 2°C: Cured at 40°C: | Value achieved | 120 N·(50 mm) ⁻¹ 74 N·(50 mm) ⁻¹ 187 N·(50 mm) ⁻¹ |
| Decothane Ultra 15 | Elongation properties to BS EN ISO 527-4 : 1997 Control: Cured at 2°C: Cured at 40°C: | Value achieved | 1.33% 1.44% 1.73% |
| Decothane Ultra 15 | Resistance to dynamic indentation to EOTA TR 006 : 2004 On steel: On carrier membrane on insulation: | Value achieved | l ₄ l ₂ |
| Decothane Ultra 15 | Resistance to static indentation to EOTA TR 007 : 2004 On steel: On carrier membrane on insulation: | Value achieved | L ₄ L ₃ |
| Decothane Ultra 15 | Resistance to fatigue movement to EOTA TR 008 : 2004 (500 cycles) | No damage | Pass |
| Sikalastic -625N | Tensile properties to BS EN ISO 527-4 : 1997 Control: Cured at 2°C: Cured at 40°C: | Value achieved | 1144 N·(50 mm) ⁻¹ 1018 N·(50 mm) ⁻¹ 1118 N·(50 mm) ⁻¹ |
| Sikalastic -625N | Elongation properties to EN ISO 527-4 : 1997 Control: Cured at 2°C: Cured at 40°C: | Value achieved | 3.07% 3.64% 3.53% |
| Sikalastic -625N | Resistance to dynamic indentation to EOTA TR 006 : 2004 On steel: On carrier membrane on insulation: | Value achieved | l ₄ l ₃ |
| Sikalastic -625N | Resistance to static indentation to EOTA TR 007 : 2004 On steel: On carrier membrane on insulation: | Value achieved | L ₄ L ₃ |
| Sikalastic -625N | Resistance to fatigue movement to EOTA TR 008 : 2004 (1000 cycles) | No damage | Pass |
| 80 mm Sikatherm | Compressive strength at 10% compression to MOAT 50 : 1992 | ≥ 150 kPa declared | Pass |

3.4.2 The adhesion of the bonded carrier membrane and waterproofing system is sufficient to resist the effects of wind suction, elevated temperature and thermal shock conditions likely to occur in practice.

3.4.3 The systems 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 by sharp objects or concentrated loads. Where heavy or frequent traffic access is required the advice of the Certificate holder must be sought on suitable protection, but such advice is outside the scope of the Certificate.

3.4.4 The systems are 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

Data were assessed for the following characteristics.

6.1 Thermal performance

6.1.1 Calculations of thermal transmittance (U value) must be carried out in accordance with BS EN ISO 6946 : 2017 and BRE Report BR 443 : 2019 using the declared thermal conductivity ($\lambda_{90/90}$ value) of the insulation components given in Table 9 of this Certificate.

Table 10 Insulation declared thermal conductivity

| Insulation thickness (mm) | Declared thermal conductivity ($W \cdot m^{-1} \cdot K^{-1}$) |
|----------------------------|---|
| ≤80 mm thickness | 0.026 |
| 80 mm to <120 mm thickness | 0.025 |
| ≥120 mm | 0.024 |

6.1.2 The U value of a completed roof will depend on the thickness of the insulation used and the insulating value of other roof components/layers. Example U values for a roof incorporating the systems are given in Table 11.

Table 11 Example U values (insulation bonded and mechanically fastened)

| U value requirement ($W \cdot m^{-2} \cdot K^{-1}$) | Insulation thickness requirement (mm) ⁽¹⁾ | | | | | |
|--|--|---|-----------------------|---|----------------------|---|
| | Concrete ⁽²⁾ | | Timber ⁽³⁾ | | Metal ⁽⁴⁾ | |
| | Bonded | Mechanically ⁽⁵⁾ fastened | Bonded | Mechanically ⁽⁵⁾ fastened | Bonded | Mechanically ⁽⁵⁾ fastened |
| 0.13 | — ⁽⁶⁾ | — ⁽⁶⁾ | — ⁽⁶⁾ | — ⁽⁶⁾ | — ⁽⁶⁾ | — ⁽⁶⁾ |
| 0.15 | 150 | — ⁽⁶⁾ | 145 | — ⁽⁶⁾ | 155 | — ⁽⁶⁾ |
| 0.16 | 140 | — ⁽⁶⁾ | 135 | 155 | 145 | — ⁽⁶⁾ |
| 0.18 | 125 | 145 | 120 | 140 | 125 | 150 |
| 0.20 | 115 | 130 | 110 | 125 | 120 | 135 |
| 0.25 | 95 | 105 | 85 | 100 | 95 | 110 |

(1) Nearest available thickness.

(2) 150 mm concrete deck — $1.33 W \cdot m^{-2} \cdot K^{-1}$, AVCL, insulation and a waterproofing system.

(3) 12.5 mm plasterboard, 150 mm timber joists (12.5%)/air cavity (87.5%), 18 mm plywood decking, AVCL, insulation and a waterproofing system.

(4) Metal deck, AVCL, insulation and a waterproofing system.

(5) Includes 5.55 galvanized steel insulation fixings per m^2 , with a 4.8 mm cross-sectional diameter.

(6) For improved thermal/carbon emission performance, additional insulation thicknesses may be considered.

6.1.3 The systems can contribute to maintaining continuity of thermal insulation at junctions between elements and openings. Detailed guidance for other junctions and on limiting heat loss by air infiltration can be found in the documents supporting the national Building Regulations.

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 these systems were assessed.

8.2 Results of durability tests are given in Table 12.

Table 12 Results of durability tests

| Product assessed | Assessment method | Requirement | Result |
|---|---|----------------|------------------------------|
| Decothane Ultra 15 | Resistance to delamination to EOTA TR 004 : 2004 after water exposure at 60°C for 30 days On concrete: On mastic asphalt: On galvanised steel: | ≥ 50 kPa | Pass |
| | | | Pass |
| | | | Pass |
| S-Vap 5000E SA bonded to concrete | Resistance to delamination to EOTA TR004 : 2004 heat ageing for 84 days at 80°C | ≥ 50 kPa | Pass |
| Sika-approved carrier membrane bonded to concrete | Resistance to delamination to EOTA TR004 : 2004 heat ageing for 84 days at 80°C | ≥ 50 kPa | Pass |
| Decothane Ultra 15 | Tensile properties to BS EN ISO 527-4 : 1997 After heat ageing at 80°C for 100 days After UV ageing for 400 MJ·m ⁻² | Value achieved | 433 N·(50 mm) ⁻¹ |
| | | | 376 N·(50 mm) ⁻¹ |
| | | | |
| Decothane Ultra 15 | Elongation properties to BS EN ISO 527-4 : 1997 After heat ageing at 80°C for 100 days: After UV ageing for 400 MJ·m ⁻² : | Value achieved | 1.75% |
| | | | 1.56% |
| | | | |
| Decothane Ultra 15 | Resistance to delamination to EOTA TR 004 : 2004 After water exposure at 60°C for 90 days On concrete: On galvanised steel: | ≥ 50 kPa | Pass |
| | | | Pass |
| Decothane Ultra 15 | Resistance to dynamic indentation to EOTA TR 006 : 2004 After heat ageing at 80°C for 100 days (on steel tested at -20°C): After UV ageing for 400 MJ·m ⁻² (on steel tested at -10°C): | Value achieved | I4 |
| | | | I4 |
| | | | |
| Decothane Ultra 15 | Resistance to static indentation to EOTA TR 007 : 2004 After water exposure at 60°C for 90 days | Value achieved | L4 |
| Decothane Ultra 15 | Resistance to fatigue movement to EOTA TR 008 : 2004 after heat ageing at 80°C for 100 days (50 cycles) | No damage | Pass |
| Sikalastic -625N | Tensile properties to BS EN ISO 527-4 : 1997 After heat ageing at 80°C for 200 days After UV ageing for 1000 MJ·m ⁻² | Value achieved | 1502 N·(50 mm) ⁻¹ |
| | | | 1676 N·(50 mm) ⁻¹ |
| | | | |

Table 12 Results of durability tests (continued)

| Product assessed | Assessment method | Requirement | Result |
|------------------|---|----------------|----------------|
| Sikalastic -625N | Elongation properties to BS EN ISO 527-4 : 1997 | Value achieved | |
| | After heat ageing at 80°C for 200 days: | | 2.84% |
| | After UV ageing for 1000 MJ·m ⁻² : | | 2.47% |
| Sikalastic -625N | Resistance to delamination to EOTA TR 004 : 2004 | ≥ 50 kPa | |
| | After water exposure at 60°C for 180 days On concrete: On mastic asphalt: | | Pass Pass |
| Sikalastic -625N | Resistance to dynamic indentation to EOTA TR 006 : 2004 | Value achieved | |
| | After heat ageing at 80°C for 200 days (on steel tested at -20°C): | | I ₄ |
| | After UV ageing for 1000 MJ·m ⁻² (on steel tested at -10°C): | | I ₄ |
| Sikalastic -625N | Resistance to static indentation to EOTA TR 004 : 2004 | Value achieved | |
| | After water exposure at 60°C for 180 days | | L ₄ |
| Sikalastic -625N | Resistance to fatigue movement to EOTA TR 008 : 2004 after heat ageing at 80°C for 200 days (50 cycles) | No damage | Pass |

8.3 Service life

8.3.1 Under normal service conditions, the following service lives for the systems will be achieved provided the system is designed, installed and maintained in accordance with this Certificate and the Certificate holder's instructions:

8.3.1.1 At least 15 years – when the Decothane Ultra 15 Roof Coating System is incorporated.

8.3.1.2 At least 20 years – when the Sikalastic -625N 20 Roof Coating System is incorporated.

8.3.1.3 At least 25 years – when the Decothane Ultra 20 Roof Coating System is incorporated.

8.3.1.4 At least 30 years – when the Decothane Ultra 25 Roof Coating System is incorporated.

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 The design process was assessed by the BBA and the following requirements apply in order to meet the performance assessed in this Certificate.

9.1.2 Decks to which the systems are to be applied must comply with the relevant requirements of BS 6229 : 2018 and BS 8217 : 2005 and, where appropriate, *NHBC Standards 2023*, Chapter 7.1.

9.1.3 Where traffic in excess of pedestrian traffic for maintenance is envisaged, special precautions, such as additional protection to the membrane, must be taken (for example carborundum grit or a skid-inhibiting finish incorporated into an additional bond coat).

9.1.4 For design purposes, twice the minimum finished fall should be assumed unless a detailed analysis of the roof is available, including overall and local deflection, direction of falls, etc.

9.1.5 Profiled metal decks must give a bonding area of at least 33% of the total projected surface area. Deck stiffeners cannot be counted as a satisfactory bond area, and this must be allowed for in the calculation of the bonded area for a particular application. Confirmation should be sought from the structural metal deck manufacturer for the specific deck profile installed, but this confirmation is outside the scope of the Certificate.

9.1.6 The bond of the insulation must be adequate to resist the effects of wind suction and thermal cycling likely to be experienced under normal conditions. In areas where high wind speeds can be expected, additional mechanical fixings must be considered, particularly at corners and perimeters. If mechanical fixing is impractical, suitable ballasting may be required. In all cases, a suitably competent and experienced individual must carry out the calculations in accordance with the principles of BS EN 1991-1-4 : 2005 and its UK National Annex.

9.1.7 The roof construction or immediate substrate to which the boards are fixed, must be structurally sound and have sufficient strength and stability to resist all dead, imposed and wind loads. It must also have adequate resistance to the pull-out forces created by the wind loads acting on the specified fixings used.

9.1.8 For design purposes, mechanically fastened insulation boards may be assumed to have an allowable compressive strength of 150 kPa at 10% compression.

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 Sika Liquid Plastics Built-Up Roof Systems must be carried out in accordance with the relevant clauses of BS 8000-0 : 2014 and 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.

9.2.3 The NHBC requires that the roof membranes, once installed, are inspected in accordance with *NHBC Standards 2023*, Chapter 7.1, Clause 7.1.12, including undergoing an appropriate integrity test, where required. Any damage to the membrane is repaired in accordance with section 16 of this Certificate and reinspected.

9.2.4 When carrying out the application of the waterproofing layer, the polyurethane component must be at a temperature of, or greater than, 10°C for airless spray applications. All systems must be applied when the air and substrate temperatures are greater than 5°C and the surface being treated is at least 3°C above the dew point. Special precautions may be necessary when temperatures exceed 35°C, as shown in the Certificate holder's Product Data Sheets.

9.2.5 Detailing (eg at upstands) must be carried out in accordance with the Certificate holder's instructions.

9.2.6 Adhesion will depend on the condition and cleanness of the substrate, which must be visibly dry, sound and free from loose materials or contamination (eg moss or algae).

9.2.7 When installing the self-adhesive membranes or SikaRoof Adhesive-200 or Sika C-250 Spray (if required), substrates are prepared using SikaRoof Primer 600 at a coverage rate of 150 to 500 g·m⁻² (0.18 to 0.6 litres per m²), depending on the roughness and absorbency of the substrate.

9.2.8 Insulation boards are cut to fit around projections through the roof, using either a sharp knife or a fine-toothed saw.

9.2.9 When profiled metal decking is used, the boards must be installed in a staggered layout, with the long edge at right angles to the profiles. Where possible, butt joints must occur on a crown.

9.2.10 The following must be considered for bonded insulation installations:

9.2.10.1 The minimum substrate and ambient temperature for application of the adhered systems is 5°C.

9.2.10.2 A Sika-approved self-adhesive AVCL, where required, is bonded to the substrate by removing the release film on the bottom face to expose the self-adhesive coating and pressing the membrane onto the primed substrate, ensuring full contact.

9.2.10.3 The AVCL must be applied with side and end laps of 75 mm. All laps must be fully sealed.

9.2.10.4 Sikatherm boards are adhered to the AVCL using SikaRoof Adhesive-200 or Sika C-250 Spray. The adhesive is applied in accordance with the Certificate holder's instructions.

9.2.10.5 The area of application of the adhesive must not be more than can be covered by the insulation boards in three minutes. The insulation boards must be laid and pressed into the adhesive beads before skin formation on the adhesive. Regular checks are made to ensure that the adhesive ridges are squeezed flat by lifting the leading edge of the insulation.

9.2.11 The following must be considered for mechanically fastened insulation installations:

9.2.11.1 S-Vap 500E, where required, is loose-laid over the substrate with 80 mm overlaps and sealed with a suitable tape in accordance with the Certificate holder's instructions. On metal decks, the lap area must be fully supported to allow the correct bonding pressure for the tape.

9.2.11.2 A minimum of two fixings are required to secure a 1200 x 600 mm Sikatherm insulation board to the deck in an even pattern. The requirement for additional fixings must be assessed in accordance with local national norms and standards. Further information may be sought from the Certificate holder, but such information is outside the scope of the Certificate.

9.2.12 The following must be considered for the installation of the waterproofing layer:

9.2.12.1 The insulation boards must be properly installed, without steps at joints, with the board surface clean, dry and free from oil, dust and grease. Prior to the application of a Sika-approved carrier membrane, the boards are primed using SikaRoof Primer 600 at an approximate coverage rate of 150 g·m⁻² (0.18 litres per m²).

9.2.12.2 The carrier membrane is bonded to the substrate by removing the release film on the bottom face to expose the self-adhesive coating and pressing the membrane onto the primed substrate, ensuring full contact.

9.2.12.3 The membrane must be applied with side laps of 75 mm and end laps of 150 mm. All laps must be fully sealed.

9.2.12.4 The membrane must be in good condition, clean and dry prior to application of the liquid-applied component. Any blisters in the membrane caused by trapped air must be cut and resealed immediately, prior to the application of the base coat.

9.2.12.5 Application of the liquid-applied waterproofing is by brush, roller or spray. Brush application is normally used only for small roof areas and embedding the Sika Reemat Premium Reinforcing Mat into the waterproofing.

9.2.12.6 Application must not take place when the relative humidity is in excess of 95%, or in fog. The temperature/humidity should be such that there is no risk of surface condensation occurring before or during application.

9.2.12.7 Air and substrate temperatures must be in excess of 5°C.

9.2.12.8 The liquid components must be conditioned at a temperature of 10°C or greater, for use in airless spray applications.

9.2.12.9 The wind speed must be such that it does not interfere with the application or cause overspray. No attempt to spray must be made if the wind speed exceeds $6.7 \text{ m}\cdot\text{s}^{-1}$ (15 mph), unless precautions such as the use of wind barriers are taken.

9.2.12.10 Only areas that can be coated to the full thickness before weather changes occur should be attempted.

9.2.13 Details and upstands must be treated in accordance with the Certificate holder's instructions.

9.3 Workmanship

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 systems must be carried out by specialist roofing contractors trained and approved by the Certificate holder.

9.4 Maintenance and repair

9.4.1 Ongoing satisfactory performance of the systems in use requires that they are 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 systems must be the subject of six-monthly inspections and maintenance in accordance with BS 6229 : 2018, and the Certificate holder's recommendations, where relevant, to ensure continued satisfactory performance.

9.4.3 The repair of minor damage to the waterproofing layer can be achieved effectively by clearing back to unweathered material and re-coating the damaged area with the appropriate application rates for the system used (given in Table 12) in accordance with the Certificate holder's installation instructions.

10 **Manufacture**

10.1 The production processes for the systems 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 the 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 will review the above activities on a regular basis, through a surveillance process, to verify and re-assure that the specifications and quality control operated by the manufacturer are being maintained.

11 **Delivery and site handling**

11.1 The liquid waterproofing components are delivered to site in 15-litre tins bearing the product name, batch number and the BBA logo incorporating the number of this Certificate.

11.2 Sikatherm boards are delivered to site in packs shrink-wrapped in polythene. Each pack carries a label bearing the Certificate holder's name and the BBA logo incorporating the number of this Certificate.

11.3 The AVCLs and carrier membrane are delivered to site as rolls in paper wrappings, bearing the product name, Certificate holder's name and the BBA logo incorporating the number of this Certificate.

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

11.4.1 The liquid waterproofing components, adhesives and primers must be stored in a dry, shaded area, above freezing point and away from ignition sources.

11.4.2 Sikatherm boards must be stored flat, off the ground on a clean, dry, level surface, and under cover out of direct sunlight, away from areas subject to elevated temperatures.

11.4.3 In elevated temperatures, there may be a risk of bowing caused by a thermal gradient across the board.

Supporting information in this Annex is relevant to the systems 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 Regulation

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

Management Systems Certification for production

The management system of Sika Liquid Plastics Limited, which produces the waterproofing component of the systems, has been assessed and registered as meeting the requirements of BS EN ISO 9001 : 2015 and BS EN ISO 14001 : 2015 by SGS (Certificates CH18/1439 and CH15/1207 respectively).

Bibliography

- BRE Report BR 262 : 2002 *Thermal insulation : avoiding risks*
- BRE Report BR 443 : 2019 *Conventions for U-value calculations*
- BS 5250 : 2021 *Management of moisture in buildings – Code of practice*
- 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 8217 : 2005 *Reinforced bitumen membranes for roofing — Code of practice*
- BS EN 1991-1-4 : 2005 *Eurocode 1 — Actions on structures — General actions — Wind actions*
- NA to BS EN 1991-1-4 : 2005 *UK National Annex to Eurocode 1 — Actions on structures — General actions — Wind actions*
- BS EN 1931 : 2000 *Flexible sheets for waterproofing — Bitumen, plastic and rubber sheets for roof waterproofing — Determination of water vapour transmission properties*
- BS EN ISO 527-4 : 1997 *Plastics — Determine of tensile properties — Test conditions for isotropic and orthotropic fibre-reinforced plastic composites*
- BS EN ISO 6946 : 2017 *Building components and building elements — Thermal resistance and thermal transmittance — Calculation method*
- BS EN ISO 9001 : 2015 *Quality management systems — Requirements*
- BS EN ISO 14001 : 2015 *Environmental managements systems — Requirements with guidance for use*
- DD CEN/TS 1187 : 2012 *Test methods for external fire exposure to roofs*
- EN 1928 : 2000 *Flexible sheets for waterproofing — Bitumen, plastic and rubber sheets for roof waterproofing — Determination of watertightness*
- EN 13501-1 : 2007 + A1 : 2009 *Fire classification of construction products and building elements – Classification using data from reaction to fire tests*
- EN 13501-1 : 2018 *Fire classification of construction products and building elements — Classification using data from reaction to fire tests*
- EN 13501-5 : 2005 + A1 : 2009 *Fire classification of construction products and building elements — Classification using data from external fire exposure to roofs tests*
- EOTA TR003 : 2004 *Determination of the watertightness*
- EOTA TR004 : 2004 *Determination of the resistance to delamination*
- EOTA TR006 : 2004 *Determination of the resistance to dynamic indentation*
- EOTA TR007 : 2004 *Determination of the resistance to static indentation*
- EOTA TR008 : 2004 *Determination of the resistance to fatigue movement*
- EN 13501-5 : 2016 *Fire classification of construction products and building elements — Classification using data from external fire exposure to roofs tests*
- EAD 030350-00-0402 *Liquid applied roof waterproofing kits*
- MOAT 50 : 1992 *Technical guidelines for the assessment of thermal insulation systems intended for supporting waterproofing membranes on flat and sloping roofs*
- MOAT 64 : 2001 *Technical guide for the assessment of roof waterproofing systems made of reinforced APP or SBS polymer modified bitumen sheets*

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 UKCA marking and 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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