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**Agrément Certificate**

**09/4645**

Product Sheet 3 Issue 2

## BMI THERMALLY ACTIVATED (T.A.) WATERPROOFING SYSTEMS

### TORCHSAFE T.A. UNDERLAYS

This Agrément Certificate Product Sheet<sup>(1)</sup> relates to TorchSafe T.A. Underlays, thermally activated, SBS modified bitumen membranes, for use as part of a built-up roofing specification on flat and pitched roofs with limited access.

(1) Hereinafter referred to as 'Certificate'.

#### The assessment includes

##### Product factors:

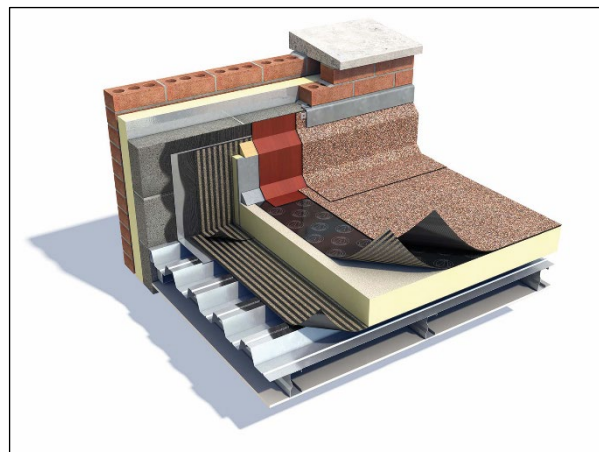
- compliance with Building Regulations
- compliance with additional regulatory or non-regulatory information where applicable
- evaluation against technical specifications
- assessment criteria and technical investigations
- uses and design considerations

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

On behalf of the British Board of Agrément

Date of Second issue: 10 January 2024

Originally certificated on 11 February 2016

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 TorchSafe T.A. Underlays, 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)

<b>Requirement:</b>	<b>B4(1)</b>	<b>External fire spread</b>
Comment:		The products are restricted by this Requirement in some circumstances. See section 2 of this Certificate.
<b>Requirement:</b>	<b>B4(2)</b>	<b>External fire spread</b>
Comment:		The fire rating of a roof containing the products will depend on the other components of the system and should be determined on a case-by-case basis. See section 2 of this Certificate.
<b>Requirement:</b>	<b>C2(b)</b>	<b>Resistance to moisture</b>
Comment:		The products will contribute to enabling a roof to satisfy this Requirement. See section 3 of this Certificate.
<b>Regulation:</b>	<b>7(1)</b>	<b>Materials and workmanship</b>
Comment:		The products are acceptable. See sections 8 and 9 of this Certificate.



#### The Building (Scotland) Regulations 2004 (as amended)

<b>Regulation:</b>	<b>8(1)</b>	<b>Fitness and durability of materials and workmanship</b>
Comment:		The use of the products satisfies this Regulation. See sections 8 and 9 of this Certificate.
<b>Regulation:</b>	<b>9</b>	<b>Building standards - construction</b>
Standard:	2.6	Spread to neighbouring buildings
Comment:		The products are restricted under clause 2.6.4 <sup>(1)(2)</sup> of this Standard in some circumstances. See section 2 of this Certificate.
Standard:	2.8	Spread from neighbouring buildings
Comment:		The fire rating of a roof containing the products will depend on the other components of the system and should be determined on a case-by-case basis. See section 2 of this Certificate.
Standard:	3.10	Precipitation
Comment:		The products will contribute to enabling a roof to satisfy this Standard, with reference to clauses 3.10.1 <sup>(1)(2)</sup> and 3.10.6 <sup>(1)(2)</sup> . See section 3 of this Certificate.
Standard:	7.1(a)	Statement of sustainability
Comment:		The products can contribute to meeting the relevant requirements of Regulation 9, Standards 1 to 6 and therefore will contribute to a construction meeting a bronze level of sustainability as defined in this Standard.

<b>Regulation:</b>	<b>Building standards - conversions</b>
<b>Comment:</b>	Comments in relation to the products under Regulation 9, Standards 1 to 6 also apply to this Regulation, with reference to clause 0.12.1 <sup>(1)(2)</sup> and Schedule 6 <sup>(1)(2)</sup> .
	(1) Technical Handbook (Domestic).
	(2) Technical Handbook (Non-Domestic).



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

<b>Regulation:</b>	<b>23(1)(a)(i) Fitness of materials and workmanship</b>
<b>Comment:</b>	<b>(iii)(b)(i)</b> The products are acceptable. See sections 8 and 9 of this Certificate.
<b>Regulation:</b>	<b>28(b) Resistance to moisture and weather</b>
<b>Comment:</b>	The products, including joints, can satisfy this Regulation. See section 3 of this Certificate.
<b>Regulation:</b>	<b>36(a) External fire spread</b>
<b>Comment:</b>	The products are restricted by this Regulation in some circumstances. See section 2 of this Certificate.
<b>Regulation:</b>	<b>36(b) External fire spread</b>
<b>Comment:</b>	The fire rating of a roof containing the products will depend on the other components of the system and should be determined on a case-by-case basis. See section 2 of this Certificate.

### Additional Information

#### NHBC Standards 2024

In the opinion of the BBA, TorchSafe T.A. Underlays, 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 products, 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 Standards do not cover the refurbishment of existing roofs.

### Fulfilment of Requirements

The BBA has judged TorchSafe T.A. Underlays, to be satisfactory for use as described in this Certificate. The products have been assessed as a detailing top sheet for built-up and single-layer bitumen roof waterproofing specifications on flat and pitched roofs.

## ASSESSMENT

### Product description and intended use

The Certificate holder provided the following description for the products under assessment. TorchSafe T.A. Underlays consist of:

- TorchSafe T.A. Underlay Sanded — with an upper surface finish of sand and a release film on the lower surface
- TorchSafe T.A. Detail Underlay — with an upper surface finish of red Syntan<sup>(1)</sup> acrylic coating and a release film on the lower surface
- TorchSafe T.A. Underlay — with an upper surface finish of thermofusible film and a release film on the lower surface.

(1) Syntan is a registered trademark.

The products have the nominal characteristics given in Table 1.

*Table 1 Nominal characteristics of TorchSafe T.A. Underlays*

Characteristic (unit)	TorchSafe T.A. Underlay Sanded	TorchSafe T.A. Detail Underlay	TorchSafe T.A. Underlay
Thickness (mm)	2.3	3.0	3.6
Width (m)	1	1	1
Length (m)	10	10	10
Mass per unit area (kg·m <sup>-2</sup> )	2.8	3.5	2.8
Watertightness (10 kPa)	pass	pass	pass
Tensile strength (N per 50 mm)			
longitudinal	450	750	450
transverse	450	550	450
Elongation (%)	4.0	≥ 30	4.0
longitudinal	3.5	≥ 30	3.5
transverse			
Low temperature flexibility (°C)	≤ -15	≤ -10	-15

#### Ancillary Items

The following ancillary items are essential to use with the products and have been assessed with the products:

- TorchSafe SA Primer — for the preparation of non-insulation substrates prior to the application of the underlays.

The Certificate holder recommends the following ancillary item for use with the products, but this material has not been assessed by the BBA and is outside the scope of this Certificate:

- Thermazone PIR Roof Board — PIR roof insulation board.

#### Definitions for products and applications inspected

The following terms have been defined for the purpose of this Certificate:

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

## Product assessment – key factors

The product was assessed for the following key factors, and the outcomes of the assessments are 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 The properties in relation to fire of the products will be dependent on the capsheet used in conjunction with them and should be determined on a case-by-case basis.

#### 2.2 Reaction to fire

2.2.1 The Certificate holder has not declared a reaction to fire classification to BS EN 13501-1 : 2018.

2.2.2 On the basis of data assessed, systems incorporating TorchSafe T.A. Underlays will be restricted in use under the documents supporting the national Building Regulations in some cases.

2.2.3 In England, the products, when used in pitches greater than 70°, excluding upstands, should not be used less than 1 m from a boundary, or on residential buildings more than 11 m in height or on other buildings more than 18 m in height. Restrictions apply on assembly and recreation buildings. These constructions should also be included in calculations of unprotected area.

2.2.4 In Wales, the products, when used in pitches greater than 70°, excluding upstands, should not be used less than 1 m from a boundary, or on other buildings more than 18 m in height or in some cases, on assembly and recreation buildings. These constructions should also be included in calculations of unprotected area.

2.2.5 In Scotland and Northern Ireland, for systems incorporating the products 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 product/system from the relevant Building Control Body.

### 3 Hygiene, health and the environment

Data were assessed for the following characteristics.

#### 3.1 Weathertightness

3.1.1 Watertightness was assessed on the basis of existing test data for representative related products.

3.1.2 Resistance to wind up was assessed on the basis of existing test data for representative related products.

3.1.3 On the basis of data assessed, TorchSafe T.A. Underlays, including joints, when completely sealed, consolidated and part of a suitable waterproofing system, will adequately resist the passage of moisture to the inside of a building and so satisfy the requirements of the national Building Regulations.

3.1.4 On the basis of data assessed, the adhesion of the bonded products is sufficient to resist the effects of wind suction, elevated temperature and thermal shock conditions likely to occur in practice and remain weathertight.

#### 3.2 Resistance to mechanical damage

3.2.1 Tensile properties, nail tear resistance, low temperature flexibility and dimensional stability were assessed on the basis of existing test data for representative related products.

3.2.2 On the basis of data assessed, TorchSafe T.A. Underlays have sufficient resistance to mechanical damage as to be unaffected by impacts, loadings and minor structural movements that are likely to occur in practice.

#### **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 The effect of heat ageing was assessed on the basis of existing test data for representative related products.

8.3 Visits to existing sites were carried out to assess the long term performance of representative related products in use. The conclusion of the visits was that the products retained sufficient physical characteristics to maintain their intended function.

##### 8.4 Service life

Under normal service conditions, the products, in conjunction with a suitable roof waterproofing system, will have a life of at least 30 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 The design process was assessed, and the following requirements apply in order to satisfy the performance assessed in this Certificate.

9.1.2 Decks to which the products are to be applied must comply with the relevant requirements of BS 6229 : 2018, BS 8217 : 2005 and, where appropriate, *NHBC Standards 2024*, Chapter 7.1.

9.1.3 When designing flat roofs, twice the minimum finished fall must be assumed, unless a detailed analysis of the roof is available, including overall and local deflection and direction of falls.

9.1.4 Insulation used in conjunction with the products must be approved by the Certificate holder and must be:

- Thermazone PIR Roof Board covered, or
- as described in the relevant clauses of BS 6229 : 2018, or
- the subject of a current BBA Certificate and used in accordance with, and within the limitations of, that Certificate.

## 9.2 Installation

9.2.1 Installation instructions provided by the Certificate holder were assessed and judged to be appropriate and adequate.

9.2.2 Installation must be carried out in accordance with this Certificate, the Certificate holder's instructions and the relevant clauses of BS 8000-0 : 2014, BS 8000-4 : 1989 and BS 8217 : 2005. A summary of instructions and guidance are provided in Annex A.

9.2.3 The products may be laid in conditions normal to roofing work. They must not be laid in rain, snow or heavy fog, nor if the temperature falls below 5°C. At low temperatures, precautions must be taken against the formation of condensation on the substrate.

9.2.4 Deck surfaces must be dry, clean and free from sharp projections such as nail heads and concrete nibs.

9.2.5 Non-insulation substrates must be primed with TorchSafe SA Primer.

9.2.6 The NHBC requires that a roof incorporating TorchSafe T.A. Underlays, once installed, be inspected in accordance with *NHBC Standards 2024* Chapter 7.1, Clause 7.1.11, including the use of an appropriate integrity test, where required. Any damage to the products assessed in this Certificate must be repaired in accordance with section 9.4 of this Certificate and reinspected, in order to maintain products performance.

## 9.3 Workmanship

Practicability of installation was assessed on the basis of the Certificate holder's information and BS 8217 : 2005. To achieve the performance described in this Certificate, the product can be installed by a competent roofing contractor experienced with this type of product.

## 9.4 Maintenance and repair

9.4.1 As the products are part of a built-up roof specification and have suitable durability, maintenance is not required. However, any damage occurring before enclosure must be repaired.

9.4.2 In the event of damage, the products can be repaired by patching with the same product by thermally activating with a hot-air welding gun as described in the Annex.

## 10 **Manufacture**

10.1 The production processes for the products 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 review the above measures on a regular basis through a surveillance process, to verify that the specifications and quality control operated by the manufacturer are being maintained.

## 11 Delivery and site handling

11.1 The Certificate holder stated that the products are delivered to site in rolls secured with paper wrappers including the product name, type of surface finish, roll length, colour coding, batch sticker and BBA logo incorporating the number of this Certificate.

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

11.2.1 Rolls should be stored upright on a clean, dry, level surface, under cover and protected from excessive heat and mechanical damage.

11.2.2 TorchSafe S.A. Primer must be stored under cover on a flat, level and clean surface away from sources of heat and ignition.

11.2.3 The primer and adhesive are delivered to site as shown in Table 2.

*Table 2 Packaging information*

Product assessed	Packaging/size
TorchSafe S.A. Primer	
– hand-applied grade	Cans/5 and 25 litres
– spray-applied grade	Pressurised canisters/17 kg



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 products under the *GB CLP 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).

### CE marking

The Certificate holder has taken the responsibility of CE marking the product, in accordance with harmonised European Standard EN 13707 : 2004.

### Management Systems Certification for production

The management system of the manufacturer has been assessed and registered as meeting the requirements of EN ISO 9001 : 2015 and EN ISO 14001 : 2015 by TÜV NORD (Certificates 44 100 191677 and 44 104 191677 respectively).

### Additional information on installation

#### General

A.1 At falls in excess of 5° (1:11), precautions against slippage, and requirements for mechanical fixing as required by BS 8217 : 2005, must be observed.

#### Procedure

A.2 The underlay is initially rolled out onto the insulation, or (in the case of a cold roof specification) the primed substrate, positioned with the recommended headlaps and cut to length. The underlay must be cut tight to all details.

A.3 The underlay is rolled back to half the length of the roll, and the release film carefully cut across the roll with a sharp knife, ensuring that the membrane is not damaged. The release film on the selvedge of adjacent membrane is removed.

A.4 The underlay is rolled back out, removing the release film, and pressure is applied across the roll towards the lap to expel air from under the membrane, whilst thermally activating the adhesive using hot-air, flame-free welding equipment. The procedure is repeated for the other half of the roll.

A.5 Laps are sealed by hot-air welding using flame-free equipment and a steel roller applying a constant and even pressure, ensuring that a continuous bead of bitumen exudes from the lap. The side lap width is 75 mm and the end lap 100 mm.

A.6 When applying the capsheet, the membrane edges, including end laps, must be offset at least 300 mm from those of the underlay to avoid a build-up of overlaps.

#### Detailing sheet

A.7 TorchSafe T.A. Detail Underlay is cut from across the roll to the required width of the detail to be formed.

A.8 The membrane is formed into the detail shape prior to the removal of the release film on the lower surface.

A.9 The release film is cut carefully with a sharp knife, ensuring that the membrane is not damaged, to aid removal prior to bonding.

A.10 Bonding is achieved by thermally activating the lower surface using a hot-air welding gun.

A.11 Overlaps must follow the mineral-free 75 mm selvedge and are sealed using a hot-air welding gun.

## 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 8217 : 2005 *Reinforced bitumen membranes for roofing — Code of practice*
- BS EN 13501-1 : 2018 *Fire classification of construction products and building elements — Classification using data from reaction to fire tests*
- EN 13707 : 2004 + A2 : 2009 *Flexible sheets for waterproofing — Reinforced bitumen sheets for roof waterproofing — Definitions and characteristics*
- EN ISO 9001 : 2015 *Quality management systems — Requirements*
- EN ISO 14001 : 2015 *Environmental management systems — Requirements*

## 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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