

## Sika Limited

### Target Market - Roofing

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## Agrément Certificate

08/4532

Product Sheet 1

## SARNAFIL WATERPROOFING MEMBRANES

## SARNAFIL MECHANICALLY FASTENED ROOF WATERPROOFING MEMBRANES

This Agrément Certificate Product Sheet<sup>(1)</sup> relates to Sarnafil Mechanically Fastened Roof Waterproofing Membranes, comprising single-ply polymeric sheets for use on flat or pitched roofs with limited access.

(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 products will resist the passage of moisture to the inside of the building (see section 6).

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

**Resistance to wind uplift** — the products will adequately resist the effects of any wind suction acting on the roof (see section 8).

**Resistance to foot traffic** — the products will accept limited foot traffic and loads associated with installation and maintenance (see section 9).

**Durability** — under normal service conditions, Sarnafil S 327-EL and Sarnafil TS77 membranes will provide durable roof waterproof coverings with service lives in excess of 35 and 25 years respectively (see section 11).



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 Third issue: 04 May 2017

John Albon – Head of Approvals  
Construction Products

Originally certificated on 31 March 2008

  
Claire Curtis-Thomas  
Chief Executive

*Certificate amended on 11 May 2017 to include TS77-E membrane.*

*The BBA is a UKAS accredited certification body – Number 113.*

*The schedule of the current scope of accreditation for product certification is available in pdf format via the UKAS link on the BBA website at www.bbacerts.co.uk  
Readers are advised to check the validity and latest issue number of this Agrément Certificate by either referring to the BBA website or contacting the BBA direct.*

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## Regulations

In the opinion of the BBA, Sarnafil Mechanically Fastened Roof Waterproofing Membranes, 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):



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

<b>Requirement:</b>	<b>B4(2)</b>	<b>External fire spread</b>
Comment:		The use of the products in a suitable roof specification can be unrestricted under this Requirement. See section 7 of this Certificate.
<b>Requirement:</b>	<b>C2(b)</b>	<b>Resistance to moisture</b>
Comment:		The products, including joints, will enable a roof to satisfy this Requirement. See section 6.1 of this Certificate.
<b>Regulation:</b>	<b>7</b>	<b>Materials and workmanship</b>
Comment:		The products are acceptable. See section 11 and the <i>Installation</i> part of this Certificate.



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

<b>Regulation:</b>	<b>8(1)(2)</b>	<b>Durability, workmanship and fitness of materials</b>
Comment:		Use of the products satisfies the requirements of this Regulation. See sections 10 and 11 and the <i>Installation</i> part of this Certificate.
<b>Regulation:</b>	<b>9</b>	<b>Building standards applicable to construction</b>
Standard:	<b>2.8</b>	Spread from neighbouring buildings
Comment:		When used in a suitable roof specification, the products are classified as having low vulnerability under clause 2.8.1 <sup>(1)(2)</sup> of this Standard and will enable a roof to be unrestricted, with reference to clauses 2.8.1 <sup>(1)(2)</sup> and 2.8.2 <sup>(1)(2)</sup> . See section 7 of this Certificate.
Standard:	<b>3.10</b>	Precipitation
Comment:		The products, including joints, will enable a roof to satisfy the requirements of this Standard, with reference to clauses 3.10.1 <sup>(1)(2)</sup> and 3.10.7 <sup>(1)(2)</sup> . See section 6.1 of this Certificate.
Standard:	<b>7.1(a)</b>	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>12</b>	<b>Building standards applicable to conversions</b>
Comment:		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(a)(i)</b>	<b>Fitness of materials and workmanship</b>
Comment:	<b>(iii)(b)(i)</b>	The products are acceptable. See section 11 and the <i>Installation</i> part of this Certificate.
<b>Regulation:</b>	<b>28(b)</b>	<b>Resistance to moisture and weather</b>
Comment:		The products, including joints, will enable a roof to satisfy the requirements of this Regulation. See section 6.1 of this Certificate.

<b>Regulation:</b>	<b>36(b)</b>	<b>External fire spread</b>
<b>Comment:</b>	The use of the products in a suitable roof specification can be unrestricted by the requirements of this Regulation. See section 7 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: 1 *Description (1.2)* and 3 *Delivery and site handling (3.3)* of this Certificate.

### Additional Information

#### NHBC Standards 2017

NHBC accepts the use of Sarnafil Mechanically Fastened Roof Waterproofing Membranes, provided they are installed, used and maintained in accordance with this Certificate, in relation to *NHBC Standards, Chapter 7.1 Flat roofs and balconies*.

#### CE marking

The Certificate holder has taken the responsibility of CE marking the products in accordance with harmonised European Standard BS EN 13956 : 2012. An asterisk (\*) appearing in this Certificate indicates that data shown are given in the manufacturer's Declaration of Performance.

#### Registered Contractors Scheme<sup>(1)</sup>

The Certificate holder operates a Registered Contractors Scheme for these products under which contractors are trained, registered and regularly reviewed by the Certificate holder to demonstrate that they are competent to carry out installation in accordance with this Certificate. Details of Registered Contractors are available from the Certificate holder. Registered Contractors are responsible for each installation of the products they undertake.

(1) The Certificate holder's records relating to their Registered Contractors Scheme will be audited annually by the BBA as part of its programme of surveillance.

### Technical Specification

#### 1 Description

1.1 Sarnafil Mechanically Fastened Roof Waterproofing Membranes comprise:

- Sarnafil S327-EL — a multi-layer roof waterproofing membrane based on plasticised PVC, incorporating UV- and flame-retardant stabilisers
- Sarnafil TS77/TS77-E — a multi-layer, polyester-reinforced, synthetic roof waterproofing membrane based on flexible polyolefins (FPO) and incorporating UV- and flame-retardant stabilisers and a non-woven glassfibre inlay.

1.2 The membranes are manufactured to the nominal characteristics given in Table 1.

Table 1 Nominal characteristics — PVC and FPO membranes

Characteristic (unit)	Sarnafil S327-EL				Sarnafil TS77/TS77-E			
	1.2	1.5	1.8	2.0	1.2	1.5	1.8	2.0
Thickness* (mm)	1.2	1.5	1.8	2.0	1.2	1.5	1.8	2.0
Roll length (m)	20	20	15	15	25	20	15	15
Roll width (m)	2,3	2,3	2,3	2,3	2	2	2	2
Weight (kg·m <sup>-2</sup> ) <sup>(1)</sup>	1.6	1.9	2.4	2.6	1.2	1.45	2.0	2.2
Roll weight (kg)	64	76	72	78	60	60	60	66
Colour upper face lower face	A range of colours is available				grey/ beige	grey/ beige	grey/ beige	grey/ beige
Tensile strength* N per 50 mm longitudinal transverse	>1100 >1100	>1100 >1100	>1100 >1100	>1100 >1100	≥900 ≥ 800	≥1000 ≥ 900	≥300 ≥ 300	≥300 ≥300
Elongation* (%) longitudinal transverse	>12 >12	≥ 12 ≥ 12	≥ 12 ≥ 12	≥ 13 ≥ 13	≥ 11 ≥ 11	≥ 13 ≥ 13	≥ 13 ≥ 13	≥ 13 ≥ 13
Tear strength* (N) longitudinal transverse	≥200 ≥200	≥200 ≥200	≥200 ≥200	≥200 ≥200	≥300 ≥300	≥300 ≥300	≥300 ≥300	≥300 ≥300
Dimensional stability* (%) longitudinal transverse	≤0.3 ≤0.2	≤0.3 ≤0.2	≤0.3 ≤0.2	≤0.3 ≤0.2	≤0.2 ≤0.1	≤0.2 ≤0.1	≤0.2 ≤0.1	≤0.2 ≤0.1
Foldability at low temperature (°C)	≤-25	≤-25	≤-25	≤-25	≤-15	≤-35	≤-40	≤-40
Impact resistance* (mm) soft substrate hard substrate	≥800 ≥450	900 600	1000 700	≥1000 ≥700	≥800 ≥500	≥900 700	≥1250 1000	≥1500 ≥1250
Static load resistance*(kg) soft substrate hard substrate	— —	≥20 ≥20	≥20 ≥20	≥20 ≥20	≥20 ≥20	≥20 ≥20	≥20 ≥20	≥20 ≥20
Watertightness*	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass

1.3 Ancillary items necessary for installation of the products and included in this Certificate are:

- Sarnabar — 2mm thick, roll formed galvanized bar, perforated for mechanical fixing
- Sarnafast Fastening System — approved by the Certificate holder for use with the membranes.

1.4 Other items or components which may be used with the products, but which are outside the scope of this Certificate, are:

- Sarnavap 500E, 1000E and 2000E — polyethylene vapour control layers
- Sarnavap Jointing Tape — double-sided tape for use in sealing the Sarnavap vapour control layers
- Sarnavap 5000E SA — a self-adhered bituminous vapour control layer
- Sarnatherm — a range of thermal insulations comprising rigid urethane foam and extruded polystyrene
- Sarnaplast 2235 — elastomeric, one-part silicone sealant for sealing edges and perimeter upstand flashings
- Primer 110 — surface primer for use on substrates prior to application of Sarnaplast 2235 on absorbent substrates/metal/Sarnafil G/S membranes
- Primer 501 — a surface primer for use on substrates prior to application of Sarnaplast 2235 on absorbent substrates/metal/Sarnafil T membranes
- Sarnafil T Prep — seam preparation for use prior to hot-air welding Sarnafil T and degreasing metal
- Sarnavap G/S Welding Cord — welding cord used with Sarnabar to increase wind uplift resistance at perimeters, for use with Sarnafil S membranes
- Sarnavap T Welding Cord — welding cord used with Sarnabar to increase wind uplift resistance at perimeters, for use with Sarnafil TS77 membranes
- SarnaTred Walkway Pads — for roof maintenance/access.

## 2 Manufacture

2.1 The products are manufactured by extrusion coating plasticised PVC and FPO into sheets. The sheets are then heat laminated with a reinforcing scrim in between.

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 being operated by the manufacturer are being maintained.

2.3 The management system of Sika Limited has been assessed and registered as meeting the requirements of BS EN ISO 9001 : 2008 and BS EN ISO 14001 : 2004 by SQS (Certificate 31982).

## 3 Delivery and site handling

3.1 The products are delivered to site in rolls packaged in polythene bearing a label with the product identification, stock number, lot number, bulk roll number, area, date code and the BBA logo incorporating the number of this Certificate.

3.2 Rolls should be stored in a cool, dry area on a clean, level surface, and kept under cover. They should only be unwrapped from packaging at the time of installation, and unused membrane should be returned to its packaging until required.

3.3 The Certificate holder has taken the responsibility of classifying and labelling the products 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 Sarnafil Mechanically Fastened Roof Waterproofing Membranes.

## Design Considerations

### 4 General

4.1 Sarnafil Mechanically Fastened Roof Waterproofing Membranes are satisfactory for as mechanically-fixed roof waterproofing layers on flat and pitched roofs with limited access.

4.2 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 traffic in excess of this is envisaged, special precautions, such as additional protection to the membrane, must be taken (see section 9).

4.3 Flat roofs are defined for the purpose of this Certificate as those having a minimum finished fall of 1:80. Pitched roofs are defined as those having a fall in excess of 1:6. 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 and direction of falls.

4.4 Decks to which the membranes are to be applied must comply with the relevant requirements of BS 6229 : 2003, BS 8217 : 2005 and, where appropriate, *NHBC Standards 2017*, Chapter 7.1.

4.5 Insulation systems or materials used in conjunction with the membranes must be either as described in the relevant clauses of BS 8217 : 2005 or be the subject of a current BBA Certificate and be used in accordance with, and within the limitations of, that Certificate.

4.6 The Sarnafil S327-EL membrane can be adversely affected by contact with bituminous products and polystyrene insulation boards. In these cases, a felt-backed version or a suitable separating layer must be used. Where doubt arises, the advice of the Certificate holder should be sought.

## 5 Practicability of installation

The membranes should only be installed by members of the Certificate holder's Registered Contractors Scheme (see the *Additional Information* part of this Certificate).

## 6 Weathertightness



6.1 The membranes, including joints, when completely sealed and consolidated, will adequately resist the passage of moisture into the building and enable a roof to comply with the requirements of the national Building Regulations.

6.2 The membranes are impervious to water and will provide a weathertight roof capable of accepting minor structural movement without damage.

## 7 Properties in relation to fire



7.1 The following material specifications will be unrestricted by the requirements of the national Building regulations:

- a system comprising 19 mm thick plywood deck, one layer of Sarnavap vapour control layer, one layer of 80 mm PIR insulation and one layer of Sarnafil S327-12EL membrane, mechanically-fastened with Sarnafast fixings
- a system comprising 19 mm thick plywood deck, one layer of Sarnavap vapour control layer, one layer of 85 mm thick PIR insulation and one layer of Sarnafil S327-12EL membrane, mechanically-fastened with Sarnafast fixings
- a system comprising 19 mm thick plywood deck, one layer of Sarnavap vapour control layer, one layer of 75 mm thick mineral wool insulation and one layer of Sarnafil S327-12EL thick (3 m wide) membrane, mechanically-fastened with Sarnafast fixings
- a system comprising 19 mm thick OSB deck, one layer of Sarnavap 1000E vapour control layer, one layer of 140 mm rockwool insulation and one layer of Sarnafil TS77-12E membrane, mechanically-fastened.

7.2 The designation of other specifications (eg on combustible substrates) should be confirmed by:

**England and Wales** — test or assessment in accordance with Approved Document B, Appendix A, Clause A1

**Scotland** — test to conform to Mandatory Standard 2.8, clauses 2.8.1 and 2.8.2

**Northern Ireland** — test or assessment by a UKAS-accredited laboratory, BRE or an independent consultant with appropriate experience.

## 8 Resistance to wind uplift

8.1 In mechanically-fastened systems, the number of fixings and their position will depend upon:

- wind uplift forces to be resisted
- the pull-out strength of fixing screws
- elastic limit of the membrane
- appropriate safety factors.

8.2 The number of fixings used should be established by reference to the wind uplift forces calculated by a suitably experienced and competent individual in accordance with BS EN 1991-1-4 : 2005 and its UK National Annex, on the basis of the maximum permissible loads.

8.3 The Certificate holder provides a design service which takes into account all the relevant information supplied, and provides a specification for the positioning of fastening bars or washers and the number of fixings required. Liability for the calculations of the design of the mechanically fastened system lies with the Certificate holder.

## 9 Resistance to foot traffic

The membranes can withstand, without damage, the limited foot traffic and light concentrated loads associated with the installation and maintenance operations. Reasonable care should be taken, however, to avoid sharp objects or concentrated loads. Where regular traffic is envisaged, ie maintenance of lift equipment, a walkway should be provided using SarnaTred Walkway Pads or concrete slabs on paving support pads.

## 10 Maintenance



10.1 The membranes must be the subject of annual inspections and maintenance to ensure continued performance. Exposed membrane must be free from the build-up.

10.2 A planned maintenance cycle, including inspections by the Certificate holder at minimum intervals of every five years, should be introduced if an extended service life is required. The Certificate holder can advise on methods of extending the service life. This could include the use of thicker membranes, specific maintenance requirements, or localised replacement or repair.

10.3 Any damage should be repaired in accordance with section 16 and the Certificate holder's instructions.

## 11 Durability



### Sarnafil S327-EL

11.1 a Sarnafil S327-EL roofing system, used in the context of this Certificate, will have a service life in excess of 35 years.

A life in excess of 40 years can be achieved with periodic maintenance, as described in section 10.

### Sarnafil TS77 and TS77-E

11.2 Sarnafil TS77 and TS77-E will have a service life in excess of 25 years.

## 12 Reuse and recyclability

The products comprise polyvinyl chloride, flexible polyolefins, polyester and glass, which can be recycled.

## Installation

### 13 General

13.1 Installation of Sarnafil Mechanically Fastened Roof Waterproofing Membranes (see Figure 1) must be carried out by trained and approved installers working in accordance with the relevant clauses of the Certificate holder's instructions, BS 8217: 2005 and BS 8000-4 : 1989.

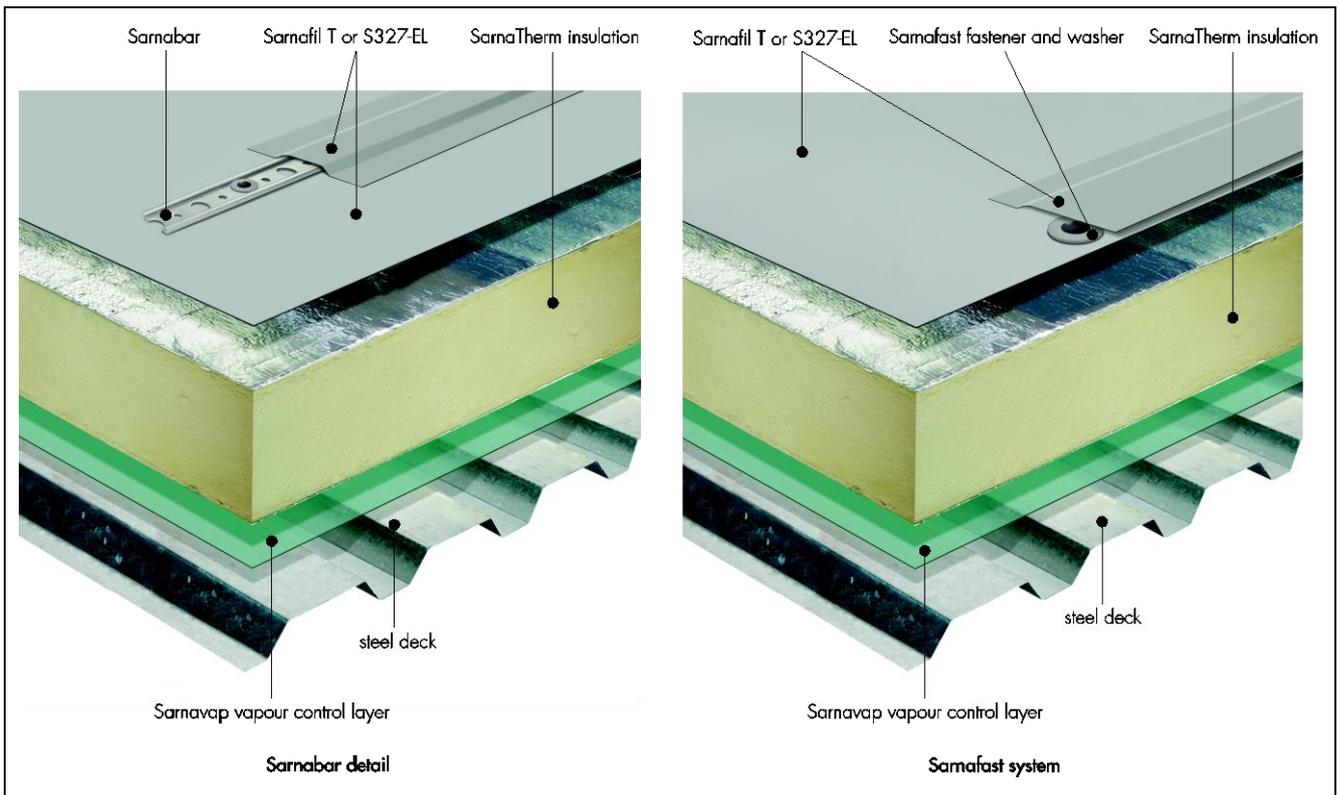
13.2 Conditions on site should be those for normal roof waterproofing work. Deck surfaces must be dry, clean and free from sharp projections, such as nail heads or concrete nibs. When used over a rough substrate, a suitable protection layer should be laid first.

13.3 In all cases, a vapour control layer should be used directly over the deck. When internal temperatures and humidity conditions will exceed 22°C with 50% relative humidity, special precautions should be taken and the Certificate holder should be consulted.

13.4 Insulation boards should be fixed to the substrate in such a way as not to impair the performance of the waterproofing membrane.

13.5 Installation should not be carried out during wet weather (ie rain, fog or snow).

Figure 1 Fixing details



## 14 Procedure

14.1 The membrane should be laid flat onto the substrate, without folds or ripples, and fixed to the deck either using Sarnabars fixed by screws through the membrane, or by the Sarnafast system (see Figure 1) through the overlap of the membrane.

14.2 The position of the bars or washers and the number of fixing screws required must be in accordance with the fixing specifications provided by the Certificate holder.

14.3 The Sarnabar is weatherproofed by heat welding 200 mm wide strips of Sarnafil membrane over the bar onto the main membrane (see Figure 1).

14.4 At a vertical flashing and penetration of the roof, the horizontal membrane requires additional fastening bars. On the perimeter, the membrane must be secured against tearing by welding a 4 mm diameter G/S or T cord to the membrane beyond the last fastening.

14.5 For continuous fixing the fastening bars should be positioned with a 10 mm gap to allow for expansion. Ends of the bars should be fixed with screws.

14.6 If the laps are to be hand welded, fastening bars should run at 90° to the side laps.

### Steel decks

14.7 Steel decks must be manufactured from galvanized steel with a minimum thickness of 0.7 mm.

14.8 On main roof areas Sarnabars must always run at 90° to the profiled metal deck corrugations, and be mechanically-fastened using self-drilling and self-tapping screws and tubes in accordance with the Certificate holder's instructions.

## **Reinforced concrete decks**

14.9 Concrete decks will require pre-drilling. The diameter of the holes should not be less than 6 mm and nylon dowels or self-tapping anchors are recommended. Fastening must be installed in accordance with the Certificate holder's instructions.

14.10 When re-roofing on concrete decks, fastening must be into the concrete. This should be noted particularly when using cement screeds or intermediate layers.

## **Timber decks**

14.11 Fastening bars should be positioned above and fixed to beams or joists. If this is not possible, fastening bars must be positioned across the direction of timber planks, provided the planks are sufficiently fastened to withstand the imposed wind loads.

14.12 Fastening bars must be fixed by the Certificate holder's approved fasteners (nails are not suitable for this purpose). Acceptable loads on each fastener and corresponding space between fasteners in each case are calculated before installation.

## **15 Jointing and flashing**

15.1 Jointing is by electrically heated hot-air welding. The temperature should be set in accordance with the Certificate holder's instructions.

15.2 The welding area must be dry and clean. If Sarnafil T Prep is used, then it should be allowed to flash off totally prior to welding. If the membrane in the weld area has become contaminated, it should be cleaned in accordance with the Certificate holder's instructions.

15.3 The welded width of the joint must be a minimum of 25 mm. Care should be taken to ensure overheating of the membrane does not occur, as possible damage to the membrane may result.

15.4 The seam must be tested with a suitable metal probe and any weakness immediately repaired.

15.5 Flashing and detailing are formed in accordance with the Certificate holder's instructions.

## **16 Repair**

Repairs must be carried out by cleaning the area around the damage and applying a patch as described in the Certificate holder's instructions.

### 17 Tests

Tests were carried out and the results assessed to determine:

On Sarnafil S327-EL

- tensile strength and elongation
- resistance to tearing
- dimensional stability
- heat ageing (56 days at 80°C) followed by tensile strength and elongation
- UV ageing (500 light hours using UVB 313 lamps cycling 4 hours UV at 45°C and 4 hours condensation at 40°C) followed by tensile strength and elongation
- water soak (28 days) followed by tensile strength and elongation
- apparent density
- water vapour permeability
- ash content
- dynamic impact on hard and soft substrate
- static indentation on hard and soft substrate
- low temperature flexibility
- effectiveness of joints

On Sarnafil TS77

- tensile strength and elongation
- water absorption
- dimensional stability
- tear strength at -10°C, 18°C and 40°C
- heat ageing (90 days at 80°C) followed by tensile strength and elongation
- UV ageing (500 light hours using UVB 313 lamps cycling 4 hours UV at 45°C and 4 hours condensation at 40°C) followed by tensile strength and elongation
- static indentation on EPS and concrete
- dynamic indentation on EPS and concrete
- water vapour permeability
- water vapour resistance
- water pressure
- low temperature folding
- air pressure of joints
- tensile strength of joints
- 'T' peel of joints
- heat ageing (84 days at 80°C) followed by low temperature folding
- UV ageing (500 light hours using UVB 313 lamps cycling 4 hours UV at 45°C and 4 hours condensation at 40°C) followed by low temperature folding
- heat ageing (28 days at 80°C) followed by tensile strength of joints
- water soak (28 days at 60°C) followed by tensile strength of joints

### 18 Investigations

18.1 Existing data on fire performance were evaluated.

18.2 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.

18.3 A visit to a site in progress was carried out to assess the practicability of installation.

18.4 Visits were made to existing sites in the UK to assess the performance in use of the Sarnafil S327-EL system.

18.5 Wind uplift test data on mechanically-fastened systems were assessed.

18.6 A reassessment of the Durability Statement was based on visits to existing sites in Switzerland and the UK and the results of tests conducted on unaged, naturally-aged and accelerated-aged material of similar formulation to Sarnafil S327-EL.

18.7 A reassessment of the Durability Statement was based on visits to existing sites in Europe and the results of tests conducted on Sarnafil TS77 unaged and naturally-aged material.

18.8 A user survey was carried out to assess the performance of the products in use.

## Bibliography

BS 6229 : 2003 *Flat roofs with continuously supported coverings — Code of practice*

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 + 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*

BS EN 13956 : 2012 *Flexible sheet for waterproofing — Plastic and rubber sheets for roof waterproofing — Definitions and characteristics*

BS EN ISO 9001 : 2008 *Quality management systems — Requirements*

BS EN ISO 14001 : 2004 *Environmental management systems — Requirements with guidance for use*

### 19 Conditions

#### 19.1 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 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.

19.2 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.

19.3 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.

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

19.5 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.

19.6 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.