



## Trelleborg Building Systems AB

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**Agrement  
 Certificate  
 No 92/2799**  
*Third issue\**

Designated by Government  
 to issue  
 European Technical  
 Approvals

## SUPERSEAL FR EPDM ROOFING SYSTEM

Système d'étanchéité  
 Dachabdichtungen


# Product



- THIS CERTIFICATE RELATES TO THE SUPERSEAL FR EPDM ROOFING SYSTEM, A SINGLE-LAYER WATERPROOFING FOR USE ON LIMITED ACCESS ROOFS.
- The product is suitable for use as:
  - (1) a mechanically fixed waterproofing layer on flat or pitched roofs
  - (2) a fully bitumen bonded waterproofing layer on roofs of maximum slope 1:4; on steeper slopes, mechanical fixing is required
  - (3) a partially adhered waterproofing layer on flat roofs

## Regulations

### 1 The Building Regulations 1991 (as amended) (England and Wales)

 The Secretary of State has agreed with the British Board of Agrément the aspects of performance to be used by the BBA in assessing the compliance of roof waterproofing systems with the Building Regulations. In the opinion of the BBA, the Superseal FR EPDM Roofing System, if used in accordance with the provisions of this Certificate, will meet or contribute to meeting the relevant requirements.

Requirement: <b>B4(2)</b>	External fire spread
Comment:	Data obtained from tests to BS 476 : Part 3 : 1958 indicate that on suitable non-combustible substructures the use of the system will enable a roof to be unrestricted under the requirements of this Regulation. See section 11 of this Certificate.
Requirement: <b>C4</b>	Resistance to weather and ground moisture
Comment:	Tests for water resistance on the membrane, including joints, indicate that the system meets this Requirement. See section 8.1 of this Certificate.
Requirement: <b>Regulation 7</b>	Materials and workmanship
Comment:	The system comprises acceptable materials. See section 13 of this Certificate.

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(4) a loose-laid and ballasted waterproofing layer for flat roofs.

- Installation must be carried out by contractors authorised and trained in installing the system by either the marketing companies or the manufacturer.
- The product is manufactured in Sweden by Trelleborg Building Systems AB, and marketed by Haire Bros Ltd, Lougestown Industrial Estate, Bush Mills, Coleraine, Co Derry, Northern Ireland  
Tel: 01265 42696  
Fax: 01265 42387, and by Premierseal Protective Systems Ltd, Unit 9B, Pagefield Industrial Estate, 97 Miry Lane, Wigan, Lancs WN6 7TG.  
Tel: 01942 248148,  
Fax: 01942 248123.

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## 2 The Building Standards (Scotland) Regulations 1990 (as amended)



In the opinion of the BBA, the Superseal FR EPDM Roofing System, if used in accordance with the provisions of this Certificate, will satisfy or contribute to satisfying the various Regulations and related Technical Standards as listed below.

<b>Regulation:</b>	<b>10</b>	Fitness of materials
<b>Standard:</b>	B2.1	Selection and use of materials and components
<b>Comment:</b>		The system complies with this Standard.
<b>Regulation:</b>	<b>12</b>	Structural fire precautions
<b>Standard:</b>	D6.7	Distances of sides of buildings from boundaries — Roofs and rooflights
<b>Comment:</b>		Data to BS 476 : Part 3 : 1958 indicate that on suitable non-combustible substructures the use of the system will be unrestricted by the requirements of these Standards. See section 11 of this Certificate.
<b>Regulation:</b>	<b>17</b>	Preparation of sites and resistance to moisture
<b>Standard:</b>	G3.1	Resistance to precipitation
<b>Comment:</b>		Data examined for water resistance on the membrane, including joints, indicate that the use of the system can enable a roof to satisfy the requirements of this Standard. See section 8.1 of this Certificate.

## 3 The Building Regulations (Northern Ireland) 1994 (as amended)



In the opinion of the BBA, the Superseal FR EPDM Roofing System, if used in accordance with the provisions of this Certificate, will satisfy or contribute to satisfying the various Building Regulations as listed below.

<b>Regulation:</b>	<b>B2</b>	Fitness of materials and workmanship
<b>Comment:</b>		The system comprises acceptable materials. See section 13 of this Certificate.
<b>Regulation:</b>	<b>C5</b>	Resistance to ground moisture and weather
<b>Comment:</b>		Tests for water resistance on the membrane, including joints, indicate that the use of the system can enable a roof to satisfy the requirements of this Regulation. See section 8.1 of this Certificate.
<b>Regulation:</b>	<b>E8</b>	External fire spread
<b>Comment:</b>		Test data to BS 476 : Part 3 : 1958 indicate that on suitable non-combustible substructures the use of the system will be unrestricted by the requirements of these Regulations. See section 11 of this Certificate.

## 4 Construction (Design and Management) Regulations 1994

Information in this Certificate may assist the client, planning supervisor, designer and contractors to address their obligations under these Regulations.

See section: 5 Description (5.2).

## Technical Specification

### 5 Description

5.1 The Superseal FR EPDM Roofing System is manufactured by blending ethylene-propylene-diene monomer (EPDM), processing oils, fillers and other additives. The sheets are produced by feeding the mix through a calender before vulcanisation.

5.2 Superseal FR is available in two roll sizes manufactured to the nominal characteristics given in Table 1.

Table 1 Nominal characteristics

	roll size 1	roll size 2
thickness (mm) (EPDM only)	1.10	1.10
thickness (mm) (EPDM + fleece)	2.10	2.10
width (m)	1.30	1.74
length (m)	20.0	20.0
weight per unit area (kgm <sup>-2</sup> )	1.59	1.43
roll weight (kg)	51.7	54.0
thickness (mm) (EPDM + fleece)	2.10	2.10

5.3 Other materials used with Superseal FR include:

Thermobond tape, type 9070 — rubber tape for heat jointing prefabricated details to Superseal FR.

Thermobond strips, type 0002 — strips of Superseal FR laminated to uncured rubber backing, for jointing membranes and flashings.

Elastobond — polymer modified bitumen for use in bitumen bonded applications.

Envirobond PS 301 — water-based synthetic rubber adhesive for use in fully bonded applications.

Corner reinforcement, type 0008 and 0009 — torch-on patches for reinforcing corners.

Sealant, type 5590 — a sealant for sealing joints in membrane.

Cold adhesive, type 3200 — a cold-applied polyurethane adhesive, for use in partially adhered system.

Cleaning wash, type 9700 — for use in cleaning of jointing areas.

200 gm<sup>-2</sup> spunbond polyester sheet — for use as a protection layer on loose-laid and ballasted applications.

5.4 Quality control checks are carried out during production and on the finished product. Checks on the final product include:

density  
tensile strength  
elongation at break  
tear resistance  
bond strength.

## 6 Delivery and site handling

6.1 Superseal FR is delivered to site in rolls wrapped in polythene film. Rolls carry a label bearing the manufacturer's name, production number, dimensions and the BBA identification mark incorporating the number of this Certificate.

6.2 EPDM membranes do not require particular storage conditions; however, jointing strips and details should be stored in a clean, dry area and in temperatures of between 5°C and 20°C. The ancillary products, adhesives, sealant and membrane should not be stored for more than 12 months.

6.3 Sealants, adhesives and cleaning wash should be stored in a dry, ventilated area in temperatures of between 5°C and 25°C and isolated from potential ignition sources. Site storage of these products should not exceed six months.

## Design Data

### 7 General

7.1 Superseal FR, when installed in accordance with this Certificate and the relevant clauses of the manufacturer's instructions, is satisfactory for use as:

(1) a mechanically fixed waterproofing layer on flat or pitched roofs

(2) a fully bitumen bonded waterproofing layer on roofs of maximum slope 1:4; on steeper slopes, mechanical fixing is required

(3) a partially adhered waterproofing layer on flat roofs

(4) a loose-laid and ballasted waterproofing layer for flat roofs.

7.2 Limited access roofs are defined for the purpose of this Certificate as those roofs subjected only to pedestrian traffic for maintenance of the roof covering and cleaning of gutters, etc. Where traffic in excess of this is envisaged, special precautions, such as additional protection to the membrane, must be taken.

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

7.4 Decks to which the product is to be applied must comply with the relevant requirements of BS 6229 : 1982 and BS 8217 : 1994 and, where appropriate, NHBC Standards, Chapter 7.1 or the Zurich Municipal Technical Manual, Section 5, clause 5.9.3.19.

7.5 Insulation systems or materials used in conjunction with the product must be approved by the manufacturer and must be:

- as described in BS 8217 : 1994 or,
- the subject of a current BBA Certificate and be used in accordance with, and within the limitations of, that Certificate.

7.6 Contact with certain bituminous, coal tar and oil-based products must be avoided as the membrane is not compatible with lower grades of bitumen. If contact with such products is likely, a separating layer should be interposed before installing the waterproofing sheet. Where doubt arises, the advice of the manufacturer or the marketing company should be sought.

## 8 Weathertightness

8.1 Tests confirm that the membrane, and joints in the membrane, when completely sealed and consolidated, will adequately resist the passage of moisture to the inside of the building, and so meet the requirements of the national Building Regulations thus:

### England and Wales

Approved Document C4, Section 5.1.

## Scotland

Regulation 17, Standard G3.1.

## Northern Ireland

Regulation C5.

8.2 The membrane is impervious to water and, when used in one of the systems described in this Certificate, will give a weathertight roof capable of accepting minor structural movement without damage.

## 9 Resistance to wind uplift

9.1 When Superseal FR is mechanically fixed, the number of fixings and their position will depend on: wind uplift forces to be resisted  
the pull-out strength of fixing screws  
elastic limit of the membrane  
appropriate safety factors.

9.2 The number of fixings used should be established by reference to the wind uplift forces calculated in accordance with either CP 3 : Chapter V : Part 2 : 1972 or BS 6399 : Part 2 : 1995 on the basis of the maximum permissible load of 0.4 kN per fixing.

9.3 The manufacturer provides design data for various types of substrate, and for methods of calculation for the distance between fixings.

9.4 Data on the partially adhered system, at the minimum percentage bonded area (25%), show that a maximum force of 1.5 kPa can be exerted without failure of the membrane. In any roof area where the calculated average wind force is above this figure the percentage bonded area should be increased accordingly, or the roof should be adequately ballasted.

9.5 When used in a loose-laid and ballasted system the precise ballast requirements should be calculated in accordance with the relevant parts of CP 3 : Chapter V : Part 2 : 1972 or BS 6399 : Part 2 : 1995. The use of concrete slabs, etc on suitable supports should be considered in areas of high wind exposure and the advice of the manufacturer should be sought. The membrane should always be ballasted with a minimum depth of 50 mm of aggregate.

## 10 Resistance to foot traffic

Data indicate that the membrane 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. Anywhere regular traffic is envisaged, ie maintenance of lift equipment, etc, a walkway should be provided using concrete slabs supported on bearing pads.

## 11 Properties in relation to fire



11.1 When tested in accordance with BS 476 : Part 3 : 1958, a system comprising a 0.7 mm thick profiled steel deck, 20 mm of 200 kgm<sup>-3</sup> mineral wool insulation board and one layer of Superseal FR EPDM membrane, mechanically fixed, achieved a rating of EXT.F.AB.

11.2 A roof waterproofed with Superseal FR and ballasted with a minimum depth of 50 mm of aggregate shall be deemed to be of designation AA. The roof therefore meets the requirements of the national Building Regulations thus:

### England and Wales

Requirement B4(2).

### Scotland

Standard D6.7.

### Northern Ireland

Regulation E8.

11.3 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 Standard D6.7

### Northern Ireland

test or assessment by UKAS accredited laboratory, BRE or an independent consultant with appropriate experience.

## 12 Maintenance

12.1 Roofs covered with Superseal FR should be the subject of annual inspections, as is good practice with single-layer waterproofing systems, to ensure continued security and performance, especially those roofs without ballast.

12.2 In the event of accidental damage, repairs can be carried out by cleaning the area around the damage and applying a patch of Superseal FR as described in sections 16.1 and 16.2.

## 13 Durability



Accelerated weathering tests confirm that satisfactory retention of physical properties is achieved. Available evidence indicates that Superseal FR should have a life of at least 20 years.

## Installation

## 14 General

14.1 Installation of the Superseal FR EPDM Roofing System must be carried out by trained installers

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working in accordance with the relevant clauses of the manufacturer's instructions, BS 8000 : Part 4 : 1989 and this Certificate.

14.2 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, concrete nibs, etc.

14.3 Installation should not be carried out during wet weather (eg rain, fog, snow, etc) nor when the temperature is below 0°C unless suitable precautions are taken in accordance with the manufacturer's instructions.

14.4 Contact with oil-based products should be avoided. If the membrane comes into contact with such products, the surfaces should be carefully cleaned.

14.5 Mechanical fixings should be used at details and perimeters on all fixing installation methods.

## 15 Procedure

### Loose-laid and ballasted applications

15.1 The membrane should be unrolled onto the substrate without folds or ripples, with a 50 mm overlap, and mechanically fixed and fully adhered at details and perimeters. Flashing and lap jointing must be carried out as described in section 15.

15.2 Loose-laid applications should be covered by at least 50 mm of well rounded gravel (16/32 grade minimum). A 200 gm<sup>-2</sup> spunbond polyester sheet should be laid between the membrane and the ballast. In areas of high wind exposure, paving slabs may be considered for use for a distance of 1 metre from the perimeter, to avoid damage to the membranes due to wind uplift.

15.3 Alternatively, concrete paving, minimum thickness of 40 mm, on bearing pads can be used as a ballast.

15.4 When using a loose-laid application, normal account should be taken in the design of the deck of the extra dead loading due to the weight of the aggregate and/or paving.

### Fully bonded applications — hot bonding

15.5 Elastobond polymer modified bitumen is used for fully bonded hot applications. The application temperature should be between 170°C and 190°C, but maximum recommended temperature is 220°C.

15.6 At falls in excess of 1:4, the normal precautions against slippage and the provision for mechanical fixings for pitched roofs should be observed.

15.7 The membrane should be unrolled on the substrate prior to the application of the bitumen to ensure no folds or ripples in the material. Any bitumen coming into contact with the upper membrane surface must be removed and the

surface cleaned prior to jointing. Flashing and butt jointing must be carried out as described in section 16.

### Fully bonded applications — cold bonding

15.8 Premierseal PS 301 Envirobond water-based synthetic rubber adhesive is used for fully bonded cold applications.

15.9 The adhesive should be applied onto the deck substrate using a paint roller. The coverage rate is 3.5 to 4 m<sup>2</sup> per litre.

15.10 The membrane should be laid onto the adhesive when it changes colour and becomes clear. The membrane should be firmly brushed into the adhesive.

15.11 Two applications of the adhesive may be necessary if the surface of the substrate is not smooth.

15.12 In any roof area where the calculated average wind force is above 1.5 kPa, adequate ballast should be used whilst full curing of the adhesive is achieved.

15.13 At falls in excess of 1:4, the normal precautions against slippage and the provision for mechanical fixings for pitched roofs should be obscured.

15.14 Flashing and butt jointing must be carried out as described in section 16.

### Partially bonded applications

15.15 When partial bonding on existing felt roofs, the substrate should be clean and dry.

15.16 The Type 3200 adhesive should be applied in parallel strips of approximately 5 cm apart. The adhesive should preferably be above 5°C on application.

15.17 The minimum percentage bonded area is 25% of the total membrane area, and is to be used in situations where the calculated average wind force is below 1.5 kPa. In any roof area where the calculated average wind force is above this figure, either the percentage bonded area should be increased accordingly or adequate ballast be used.

15.18 The adhesive should be applied in strips, and the membrane unrolled, after a 10 minute to 15 minute interval, onto the surface. The position of the membrane can be adjusted to remove folds and ripples after being unrolled into the adhesive. A stiff brush or roller should be used to ensure a good bond between the membrane and substrate. Flashing and butt jointing must be carried out as described in section 16.

### Mechanically fixed applications

15.19 In mechanically fixed applications, the membrane should be fully adhered at perimeters for a distance of 1 metre to 2 metres in from edges.

This increases the resistance to the wind loading of the membrane in this vulnerable area.

15.20 The membrane should be unrolled onto the substrate, without folds or ripples, with 5 cm overlaps, and fixed to the deck with screws passing through the discs and the membrane (and insulation board, where appropriate) at centres calculated from the average wind force in that location.

15.21 The fixings should be waterproofed using type 0002 Thermobond strip. Flashing and lap jointing must be carried out as described in section 16.

## 16 Details

### Jointing procedure

16.1 Prior to welding, the joint area should be cleaned using type 9700 wash and the area must be dry.

16.2 The type 0002 Thermobond strip should be heat welded to the membrane using the Superseal welding machine at an approximate rate of 2 m per minute. At both ends of the joint the welding strip should be heat welded using a hot-air gun and a small hard roller.

16.3 At T-joints and cross-joints the membrane surface should be heated. All exposed seam areas at T- and cross-joints should be sealed using type 5590 sealant.

16.4 At ambient temperatures below +3°C the type 0002 Thermobond strip must be preheated if joints are to be reliable. This can be achieved by storing the strips at room temperature for 8 hours before use.

### Flashing procedure

16.5 Flashings should be produced in accordance with manufacturer's instructions, using type 0002 Thermobond strip, Superseal FR and, where necessary, reinforcing corner patches types 0008 and 0009.

## Technical Investigations

The following is a summary of the technical investigations carried out on the Superseal FR EPDM Roofing System.

## 17 Tests

Samples of the membrane and other materials were obtained by the BBA from the manufacturer

for the purpose of testing. The results of the tests carried out, which show typical values for the materials, are summarised in Tables 2 to 7.

Table 2 Tests on backing scrim

Test (units)	Method*	Mean result
Weight per unit area (kgm <sup>-2</sup> )	MOAT 46 : 6H	158.3
Tensile strength (Nmm <sup>-2</sup> )	MOAT 31 : 6C	
longitudinal	(100 mm min <sup>-1</sup> )	11.50
transverse		10.94
Elongation (%)	MOAT 31 : 6C	
longitudinal	(100 mm min <sup>-1</sup> )	67
transverse		72

\*The test documents are detailed in the *Bibliography*. Numbers in the table refer to sections/parts of the various documents.

Table 3 Tests on unbacked membrane — general

Test (units)	Method*	Mean result
Hardness (IRHD)	BS 903 : Part A26	80
Weight per unit area (kgm <sup>-2</sup> )	MOAT 46 : 6H	1.29
Density (gcm <sup>-3</sup> )	BS 903 : Part A1	1.45
Tear strength (N) (trouser)	BS 903 : Part A3	
control <sup>(1)</sup>	(100 mm min <sup>-1</sup> )	11.3
heat aged		9.8
Water absorption (%)	MOAT 46 : 6J	1.03
Water vapour permeability (gm <sup>-2</sup> d <sup>-1</sup> )	BS 3177 (25°C/75% RH)	0.32
Water vapour resistance (MNsg <sup>-1</sup> )	BS 3177 (25°C/75% RH)	641

(1) Heat aged 35 days at 80°C.

\*The test documents are detailed in the *Bibliography*. Numbers in the table refer to sections/parts of the various documents.

Table 4 Tests on unbacked membrane — directional

Test (units)	Method*	Mean results	
		Long <sup>(1)</sup>	Trans <sup>(2)</sup>
Tensile strength (Nmm <sup>-2</sup> )	ISO 37		
control	(500 mm min <sup>-1</sup> )	5.4	5.3
heat aged <sup>(3)</sup>			6.5
heat aged <sup>(4)</sup>			6.7
UV aged <sup>(5)</sup>			5.1
compatibility with bitumen		2.5	3.2
Elongation at break (%)	ISO 37		
control		427	497
heat aged 35 days at 80°C			465
heat aged 84 days at 80°C			468
UV aged 1080 light hours			510
compatibility with bitumen		878	830

(1) Longitudinal direction.

(2) Transverse direction.

(3) Heat aged 35 days at 80°C.

(4) Heat aged 84 days at 80°C.

(5) UV aged 1080 light hours.

= not tested

\*The test document is detailed in the *Bibliography*. Numbers in the table refer to sections/parts of the document.

## 18 Other investigations

Table 5 Tests on full membrane — directional

Test (units)	Method*	Mean results	
		Long <sup>(1)</sup>	Trans <sup>(2)</sup>
Tensile strength (N per 50 mm)	ISO 37		
control	(500 mm min <sup>-1</sup> )	294	288
heat aged <sup>(3)</sup>		—	279
UV aged <sup>(4)</sup>		—	243
Elongation at break (%)	ISO 37		
control	(500 mm min <sup>-1</sup> )	585	541
heat aged <sup>(3)</sup>		—	469
UV aged <sup>(4)</sup>		—	567
Dimensional stability (free) (%)	MOAT 27 : 5.1.6.1	20.17	20.26

(1) Longitudinal direction.

(2) Transverse direction.

(3) Heat aged 84 days at 80°C.

(4) UV aged 1080 light hours.

— = not tested

\*The test documents are detailed in the *Bibliography*. Numbers in the table refer to the sections/parts of the various documents.

Table 6 Service performance — membrane

Test (units)	Method*	Mean result
Tear strength (trouser) (N)	BS 903 : Part A3	
control	(100 mm min <sup>-1</sup> )	35.0
heat aged <sup>(1)</sup>		27.8
Static indentation	MOAT 27 : 5.1.9	
concrete		L <sub>4</sub>
EPS		L <sub>4</sub>
Dynamic indentation	MOAT 27 : 5.1.10	
perlite		I <sub>3</sub>
EPS		I <sub>3</sub>
Water pressure (6 m head)	MOAT 27 : 5.1.4	no penetration
Sliding resistance	MOAT 27 : 5.1.7	no slippage
Fatigue resistance	MOAT 27 : 5.1.8	satisfactory
Peel resistance (N per 50 mm)	MOAT 27 : 5.1.3	
concrete substrate/bitumen	(100 mm min <sup>-1</sup> )	
bonded		42
concrete substrate/cold adhesive (fully bonded) <sup>(2)</sup>		
control		56
heat aged <sup>(4)</sup>		85
adhesive (fully bonded) <sup>(3)</sup>		
control		19
chipboard substrate/bitumen		
bonded		
control		90
heat aged <sup>(4)</sup>		56

(1) Heat aged 35 days at 80°C.

(2) Using polyurethane cold adhesive.

(3) Using water-based adhesive.

(4) Heat aged 28 days at 80°C.

(5) Heat aged at 28 days at 70°C.

\*The test documents are detailed in the *Bibliography*. Numbers and letters in the table refer to the sections/parts of the various documents.

Table 7 Service performance (joints)

Test (units)	Method*	Mean result
Air pressure	MOAT 27 : 5.2.1	no leakage
Tensile strength (Nmm <sup>-1</sup> )	MOAT 46 : 6.0	
control	(200 mm min <sup>-1</sup> )	4.0
heat aged <sup>(1)</sup>		4.2
Peel resistance of joints (T peel) (Nmm <sup>-1</sup> )	MOAT 46 : 6.P	
	(200 mm min <sup>-1</sup> )	2.4

(1) Heat aged 28 days at 80°C.

\*The test documents are detailed in the *Bibliography*. Numbers in the table refer to the sections/parts of the various documents.

18.1 Existing data on fire performance to BS 476 : Part 3 : 1958 of the product were examined.

18.2 The manufacturing processes were examined, including methods of quality control. Details were also obtained of the quality and composition of the materials used.

18.3 A visit to a site in progress to assess the method of application.

18.4 Visits were made to existing sites within the United Kingdom to assess the performance in use.

18.5 Existing data on the mechanical fixings, and wind uplift testing on the mechanically fixed system, from Bureau Veritas, and WSP (Aachen), were examined.

18.6 Data for the polyurethane cold adhesive was compared to that obtained for the previous cold adhesive and was found to have a similar performance. It was therefore assessed that the polyurethane adhesive would perform satisfactorily if tested to MOAT No 27 for wind uplift and thermal shock.

## Bibliography

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

BS 903 *Physical testing of rubber*  
Part A1 : 1980(1988) *Determination of density*  
Part A3 : 1982 *Determination of tear strength (trouser, angle and crescent test pieces)*  
Part A26 : 1969 *Determination of hardness*

BS 3177 : 1959 *Method for determining the permeability to water vapour of flexible sheet materials used for packaging*

BS 6229 : 1982 *Code of practice for flat roofs with continuously supported coverings*

BS 6399 *Loading for buildings*  
Part 2 : 1995 *Code of practice for wind loads*

BS 8000 *Workmanship on building sites*  
Part 4 : 1989 *Code of practice for waterproofing*

BS 8217 : 1994 *Code of practice for built-up felt roofing (supersedes CP 144 : Part 3)*

CP 3 *Code of basic data for the design of buildings*  
Chapter V *Loading*

Part 2 : 1972 *Wind loads*

ISO 37 : 1977 *Rubber, vulcanized. Determination of tensile stress-strain properties*

MOAT No 27 : 1983 *Directive for the Assessment of Roof Waterproofing Systems*

MOAT No 31 : 1984 *Special Directives for the Assessment of Reinforced Homogeneous Waterproof Coverings of Styrene-Butadiene-Styrene (SBS) Elastomer Bitumen*

MOAT No 46 : 1988 *Directives for the Assessment of Roof Waterproofing Systems with Non-Reinforced Vulcanized EPDM*

### 19 Conditions

19.1 This Certificate:

- (a) relates only to the product that is described, installed, used and maintained as set out in this Certificate;
- (b) is granted only to the company, firm or person identified on the front cover — no other company, firm or person may hold or claim any entitlement to this Certificate;
- (c) has to be read, considered and used as a whole document — it may be misleading and will be incomplete to be selective;
- (d) is copyright of the BBA.

19.2 References in this Certificate to any Act of Parliament, Regulation made thereunder, Directive or Regulation of the European Union, Statutory Instrument, Code of Practice, British Standard, manufacturers' instructions or similar publication, shall be construed as references to such publication in the form in which it was current at the date of this Certificate.

19.3 This Certificate will remain valid for an unlimited period provided that the product and the manufacture and/or fabricating process(es) thereof:

- (a) are maintained at or above the levels which have been assessed and found to be satisfactory by the BBA;

(b) continue to be checked by the BBA or its agents; and

(c) are reviewed by the BBA as and when it considers appropriate.

19.4 In granting this Certificate, the BBA makes no representation as to:

- (a) the presence or absence of any patent or similar rights subsisting in the product or any other product;
- (b) the right of the Certificate holder to market, supply, install or maintain the product; and
- (c) the nature of individual installations of the product, including methods and workmanship.

19.5 Any recommendations relating to the use or installation of this product which are contained or referred to in this Certificate are the minimum standards required to be met when the product is used. They do not purport in any way to restate the requirements of the Health & Safety at Work etc Act 1974, or of any other statutory, common law or other duty which may exist at the date of this Certificate or in the future; nor is conformity with such recommendations to be taken as satisfying the requirements of the 1974 Act or of any present or future statutory, common law or other duty of care. In granting this Certificate, the BBA does not accept responsibility to any person or body for any loss or damage, including personal injury, arising as a direct or indirect result of the installation and use of this product.



In the opinion of the British Board of Agrément, the Superseal FR EPDM Roofing System is fit for its intended use provided it is installed, used and maintained as set out in this Certificate.

Certificate No 92/2799 is accordingly awarded to Trelleborg Building Systems AB.

On behalf of the British Board of Agrément

A handwritten signature in black ink, appearing to read 'P. Q. Newton', is written over a light grey background.

Date of Third issue: 2nd February 1999

Director

*\*The original Certificate was awarded to Värnamo Isolerduk AB and issued on 11th June 1992 with a Second issue on 9th May 1996. This amended version includes change of name of Certificate holder, addition of the CONDAM Regulations, references to the revised Building Regulations and associated text, inclusion of a water-based adhesive for fully-bonded applications, updating of general text, and the revised Conditions of Certification.*