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Agrément Certificate  
No 92/2803

## DECOTHANE ROOF COATING SYSTEMS

### PRODUCT SHEET 2 — DECOTHANE GAMMA 20 ROOF COATING SYSTEM

#### PRODUCT SCOPE AND SUMMARY OF CERTIFICATE

This Certificate replaces and extends Certificate No 89/2165 and relates to the Decothane Gamma 20 Roof Coating System, a one-component, moisture-activated, aliphatic polyurethane roof waterproofing membrane.

#### AGRÉMENT CERTIFICATION INCLUDES:

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



#### KEY FACTORS ASSESSED

**Weathertightness** — the system will resist the passage of moisture into the building (see section 5).

**Properties in relation to fire** — tests indicate that the system will enable a roof to be unrestricted under Building Regulations (see section 6).

**Adhesion** — the adhesion of the system is sufficient to resist the effects of any likely wind suction and the effects of thermal or other minor movement likely to occur in practice (see section 7).

**Resistance to foot traffic** — the system will accept the limited foot traffic and loads associated with installation and maintenance of the system without damage (see section 8).

**Durability** — under normal service conditions the system will provide a durable waterproof covering with a service life of at least 20 years (see section 10).

The BBA has awarded this Agrément Certificate for the Decothane Gamma 20 Roof Coating System to Liquid Plastics Limited as fit for its intended use provided it is installed, used and maintained as set out in this Agrément Certificate.

On behalf of the British Board of Agrément

Head of Approvals  
— Materials

Chief Executive

Date of First issue: 8 September 1993

Date of Fifth issue: 28 March 2008

*Certificate amended on 21 December 2011 to include change of Certificate holder name, address, e-mail and registered office address.*

*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](http://www.bbacerts.co.uk)*

*Readers are advised to check the validity 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, the Decothane Gamma 20 Roof Coating System, if used in accordance with the provisions of this Certificate, will meet or contribute to meeting the relevant requirements of the following Building Regulations:



## The Building Regulations 2000 (as amended) (England and Wales)

Requirement:	<b>B4(2)</b>	External fire spread
Comment:		Test data to BS 476-3 : 1958 indicate that on suitable substructures the use of the system will enable a roof to be unrestricted under this Requirement. See sections 6.1 to 6.3 of this Certificate.
Requirement:	<b>C2(b)</b>	Resistance to moisture
Comment:		Tests for water resistance on the system, including joints, indicate that the system meets this Requirement. See sections 5.1 to 5.3 of this Certificate.
Requirement:	<b>Regulation 7</b>	Materials and workmanship
Comment:		The system is acceptable. See section 10 and the <i>Installation</i> part of this Certificate.



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

Regulation:	<b>8(1)(2)</b>	Fitness and durability of materials and workmanship
Comment:		The use of the system satisfies the requirements of this Regulation. See sections 9 and 10 and the <i>Installation</i> part of this Certificate.
Regulation:	<b>9</b>	Building standards – construction
Standard:	<b>2.8</b>	Spread from neighbouring buildings
Comment:		Test data to BS 476-3 : 1958 indicate that the system when applied to a non-combustible substrate, can be regarded as having low vulnerability under clause 2.8.1 <sup>(1)(2)</sup> of this Standard. See sections 6.1 to 6.3 of this Certificate.
Standard:	<b>3.10</b>	Precipitation
Comment:		Tests for water resistance of the system indicate that the use of the system 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 sections 5.1 to 5.3 of this Certificate.
Regulation:	<b>12</b>	Building standards – conversions
Comment:		All comments given for this system under Regulation 9 also apply to this Regulation, with reference to clause 0.12 <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) 2000 (as amended)

Regulation:	<b>B2</b>	Fitness of materials and workmanship
Comment:		The system is acceptable. See section 10 and the <i>Installation</i> part of this Certificate.
Regulation:	<b>B3(2)</b>	Suitability of certain materials
Comment:		The system is acceptable. See section 9 of this Certificate.
Regulation:	<b>C4(b)</b>	Resistance to ground moisture and weather
Comment:		Tests for water resistance of the system, including joints, indicate that the use of the system will enable a roof to satisfy the requirements of this Regulation. See sections 5.1 to 5.3 of this Certificate.
Regulation:	<b>E5</b>	External fire spread
Comment:		Test data to BS 476-3 : 1958 indicate that on suitable substructures the use of the system will enable a roof to be unrestricted under the requirements of this Regulation. See sections 6.1 to 6.3 of this Certificate.

### Construction (Design and Management) Regulations 2007

### Construction (Design and Management) Regulations (Northern Ireland) 2007

Information in this Certificate may assist the client, CDM co-ordinator, designer and contractors to address their obligations under these Regulations.

See sections: 2 *Delivery and site handling* (2.3) and 12 *Precautions* (12.1 and 12.2).

## Non-regulatory Information

### NHBC Standards 2007

NHBC accepts the use of the Decothane Gamma 20 Roof Coating System, when installed and used in accordance with this Certificate, as meeting Technical Requirement R3 in relation to *NHBC Standards Chapter 7.1 Flat Roofs and balconies*.

## Zurich Building Guarantee Technical Manual 2007

In the opinion of the BBA, the Decothane Gamma 20 Roof Covering System, when installed and used in accordance with this Certificate, satisfies the requirements of the *Zurich Building Guarantee Technical Manual, Section 4 Superstructure, Sub-section Flat roofs*.

### General

This Certificate relates to the Decothane Gamma 20 Roof Coating System, a one-component, moisture activated, aliphatic polyurethane roof waterproofing membrane.

The system is for use on flat or pitched roofs with limited access, for new work or for repairing or maintaining the waterproofing layer of existing structurally sound roofs.

The system is manufactured and marketed by the Certificate holder. Installation is carried out only by specialist roofing contractors trained and approved by the Certificate holder.

The registered office of the Certificate holder is Sika Ltd, Watchmead, Welwyn Garden City, Hertfordshire AL7 1BQ. Registered in England: 226822.

### Technical Specification

#### 1 Description

1.1 The Decothane Gamma 20 Roof Coating System consists of a first layer of Decothane Base Coat and a second layer of Decothane Top Coat applied at the rate of 2.0  $\text{lm}^{-2}$  to 2.5  $\text{lm}^{-2}$ , dependent on substrate texture, in two coats including a reinforcing layer of Premium Reemat in the first coat, and achieving a minimum thickness of 1.6 mm.

1.2 Decothane Base Coat and Top Coat are single-component, liquid-applied, moisture-activated, aliphatic polyurethane roof covering membranes. They may be spray, roller or brush applied.

1.3 Decothane Top Coat has the nominal characteristics of:

drying time (at 52% RH/22°C)	(hours)
gel time	1
touch time	2
through cure	5
flashpoint (°C)	46
standard pigments	white, pearl grey, steel grey

1.4 Decothane Base Coat has the nominal characteristics of:

drying time (at 55% RH/20°C)	(hours)
touch time	2.75
through cure	5
flashpoint (°C)	45
colour	red.

1.5 Other materials used with the system include:

- LPL Bonding Primer — a two-part primer for the preparation of porous substrates
- LPL Metal Primer — a two-part primer for the treatment of previously untreated metal surfaces and spot priming of areas of corroded metal after preparation
- Premium Reemat reinforcing mat — a non-woven glassfibre reinforcing mat for use as a reinforcement embedded in the urethane while still wet, and available for use in strips to cover individual cracks, joints or details
- LPL Skid-inhibiting Grit — to provide a non-slip finish to final coat.

1.6 Quality control checks are carried out during manufacture and on the final product. Quality control checks on the final product include:

- viscosity
- specific gravity
- pigmentation, colour and dispersion
- cure and drying times.

#### 2 Delivery and site handling

2.1 The Decothane components are delivered to site in 1.5 litre tins bearing the product's name, batch number and the BBA identification mark incorporating the number of this Certificate.

2.2 The Decothane components and primers should be stored in a dry, shaded area, above freezing point and away from ignition sources. Storage temperatures of between 10°C to 25°C will give the product a shelf-life of 12 months, at higher temperatures the shelf-life will reduce progressively. Once opened, tins should be used within two or three days.

2.3 The Decothane components and primers are all classified under *The Chemicals (Hazard Information and Packaging for Supply) Regulations 2002* (CHIP3) and bear the appropriate hazard warning label. The flashpoints and classifications are given in Table 1.

Table 1 Flashpoints and hazard classification

Material	Flashpoint (°C)	Classification
Decothane Base Coat	45	harmful, dangerous for the environment, flammable <sup>(1)</sup>
Decothane Top Coat	46	harmful, dangerous for the environment, flammable <sup>(1)</sup>
LPL Bonding Primer Part A	non-flammable	not classified
LPL Bonding Primer Part B	non-flammable	irritant
LPL Metal Primer Part A	43	irritant, flammable <sup>(1)</sup> , dangerous for the environment
LPL Metal Primer Part B	26	harmful, flammable <sup>(1)</sup> , dangerous for the environment

(1) These components should be stored in accordance with the Highly Flammable Liquids and Petroleum Gases Regulations 1997.

## Assessment and Technical Investigations

The following is a summary of the assessment and technical investigations carried out on the Decothane Gamma 20 Roof Coating System.

## Design Considerations

### 3 General

3.1 The Decothane Gamma 20 Roof Coating System is satisfactory for use as a waterproofing layer on new and existing flat, including completely flat, and pitched limited access roofs.

3.2 The system is suitable for use on the following substrates:

- concrete (primed and unprimed)
- liquid, bituminous roof coatings
- aluminium paint
- reinforced bitumen membranes (including mineral surfaced).
- fibre-cement
- glass-reinforced polyester
- existing Decothane roofs
- asphalt
- metal
- in-situ applied polyurethane foam insulation<sup>(1)</sup>

(1) Installed in accordance with BS 7021 : 1989.

3.3 The system must not be applied directly to, nor come into contact with, polystyrene insulation products.

3.4 Limited access roofs are defined for the purposes 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, for example: carborundum grit anti-slip finish incorporated into final coat.

3.5 Flat roofs are defined for the purpose of this Certificate as those roofs having a minimum finished fall of 1:80. Completely flat roofs are defined for the purpose of this Certificate as those roofs having a finished fall of less than 1:80. Pitched roofs are defined as those having falls in excess of 1:6.

3.6 When designing flat roofs, 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.

3.7 Decks to which the product is to be applied must comply with the relevant requirements of BS 6229 : 2003, BS 8217 : 2005 and, where appropriate, *NHBC Standards 2007*, Chapter 7.1, or the *Zurich Building Guarantee Technical Manual 2007*, Section 4 *Superstructure*, Sub-section *Flat roofs* pages 268 to 270.

### 4 Practicability of installation

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

### 5 Weathertightness



5.1 Test data confirm that the system will adequately resist the passage of moisture to the inside of the building and so meet or comply with the relevant requirements of the national Building Regulations:

**England and Wales** — Approved Document C, Requirement C2(b), Section 6

**Scotland** — Mandatory Standard 3.10, clauses 3.10.1<sup>(1)(2)</sup> and 3.10.7<sup>(1)(2)</sup>

(1) Technical Handbook (Domestic).

(2) Technical Handbook (Non-Domestic).

**Northern Ireland** — Regulation C4(b).

5.2 The system is impervious to water and, when used as described, will give a weathertight roofing capable of accepting minor movement without damage (see section 15, Table for *Physical properties*).

5.3 To achieve a weathertight coating it is essential that the application rate is as quoted in the Certificate holder's literature for the relevant system.

## 6 Properties in relation to fire



6.1 When tested in accordance with BS 476-3 : 1958, a system comprising:

- a 6 mm fibre-reinforced cement-based board, with a BS 747 : 1977, Type 1F, felt bonded with a polyurethane mastic bitumen adhesive, a first coat of Decothane Top Coat applied at  $1.0 \text{ lm}^{-2}$ , reinforced with Reemat Premium Grade reinforcement and a topcoat of Decothane Top Coat applied at  $0.75 \text{ lm}^{-2}$ , achieved an EXT.F.AA rating
- a 6 mm fibre-reinforced cement-based board with a first coat of Decothane Top Coat applied at  $1.0 \text{ lm}^{-2}$ , reinforced with Premium Reemat Grade reinforcement and a topcoat of Decothane Top Coat applied at  $0.75 \text{ lm}^{-2}$ , achieved an EXT.F.AA rating.

6.2 The designation of other specifications, for example when used on combustible substrates, should be confirmed by:

**England and Wales** – Test or assessment in accordance with Approved Document B, Appendix A, Clause 1

**Scotland** – Test to conform to Mandatory Standard 2.8, clause 2.8.1<sup>(1)(2)</sup>

(1) Technical Handbook (Domestic).

(2) Technical Handbook (Non-Domestic).

**Northern Ireland** – Test or assessment by a UKAS accredited laboratory, or an independent consultant with appropriate experience.

6.3 A system comprising the Decothane Gamma 20 Roof Coating System has been tested to prEN 1187 : 2001, Tests 1, 2 and 3.

## 7 Adhesion

Tests indicate that the adhesion of the system to concrete, fibre-cement, asphalt, bitumen felts, polyurethane foam and metal is sufficient to resist the effects of any wind suction, elevated temperatures, thermal shock or minor movement likely to occur in practice (see section 15, Table for *Physical properties – general*).

## 8 Resistance to foot traffic

Tests indicate that the system can accept, without damage, the limited foot traffic and light concentrated loads associated with installation and maintenance operations. However, reasonable care should be taken to avoid puncture by sharp objects or concentrated loads (see section 15, Table for *Physical properties – general*).

## 9 Maintenance



The repair of minor damage to the system can be achieved effectively by cleaning back to the unweathered material and recoating the damaged area with the membrane at the application rates stated in section 14.

## 10 Durability



Accelerated weathering tests confirm that a satisfactory retention of properties is achieved, and all available evidence indicates that the Decothane Gamma 20 Roof Coating System, when applied to flat roofs or sloping roofs at  $1.75 \text{ lm}^{-2}$ , with reinforcing mat embedded while wet, should achieve an initial design life expectancy of at least 20 years.

# Installation

## 11 General

11.1 Installation of the Decothane Gamma 20 Roof Coating System must be carried out only by specialist roofing contractors trained and approved by the Certificate holder.

11.2 The system must be at a temperature of, or greater than,  $10^{\circ}\text{C}$  for airless spray applications. All products must be applied when the air and substrate temperatures are greater than  $3^{\circ}\text{C}$ . Special precautions may be necessary when temperatures exceed  $35^{\circ}\text{C}$ , as shown in the Certificate holder's *Technical Data* sheets.

11.3 Detailing (eg upstands), should be carried out in accordance with the Certificate holder's instructions.

## 12 Precautions

12.1 Vapours from the system may cause sensitisation and irritation to the respiratory system, eyes and skin. The system should be used only in areas with sufficient ventilation to prevent the build-up of vapours. Contact with the skin,

eyes and clothing must be avoided. The supplier's instructions and the relevant safety regulations for working procedures must be adhered to at all times.

12.2 The system must not be allowed to get into the waste drainage system. Care must also be taken to prevent vapours entering the inside of the building, eg by closing doors, windows.

### 13 Site and surface preparation

13.1 Substrates on which the system is applied must be properly prepared in accordance with the Certificate holder's instructions.

13.2 Adhesion to substrates will depend on the condition and cleanliness of the substrate. Substrates must be visibly dry, sound and free from loose materials or contamination (eg moss, algae).

13.3 High pressure sand-blasting or water-jetting may be used to remove loose or flaking materials, but the substrate must be visibly dry before application of the system.

13.4 Damaged areas of the substrate (eg broken fibre-cement sheets, blistered bitumen, roofing felt) must be removed, replaced or repaired. Substrate defects (eg shallow-bottomed cracks and indentations) should be filled using Decothane Base Coat.

13.5 Deck surfaces should be free from sharp projections, such as protruding fixing bolts, concrete nibs.

13.6 Gutters and outlets should be checked to ensure that they are, and remain, clear of all debris.

13.7 All points of potential weakness such as splits, cracks, joints and crazed surfaces must be reinforced with additional Premium Reemat reinforcing mat prior to application of the system.

13.8 The Reemat reinforcing mat must first be embedded in an initial application of Decothane Base Coat applied at a rate of 1.0  $\text{lm}^{-2}$ .

13.9 On porous substrates (eg fibre-cement) the substrate should first be primed using LPL Bonding Primer, applied at a minimum rate of 6.0  $\text{m}^2\text{l}^{-1}$ , prior to application of the membrane.

13.10 On prepared surfaces of bare metal the substrate should first be primed with LPL Metal Primer applied at a minimum rate of 7.0  $\text{m}^2\text{l}^{-1}$  to 7.5  $\text{m}^2\text{l}^{-1}$ .

### 14 Application

14.1 Application can be by brush, roller or spray. Brush application is normally used only for small roof areas and embedding the Premium Reemat reinforcing mat into the waterproofing.

14.2 Prior to application, checks should be made to ensure the substrate is dry (ie free from rainwater, surface condensation, frost) and that the prevailing weather and site conditions are correct. The following normal limitations apply:

- 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
- air and substrate temperatures must be in excess of 3°C
- the Decothane components are conditioned at a temperature of 10°C or greater, for use in airless spray applications
- the primer, where used, must be cured
- the wind speed should be such that it does not interfere with the application or cause overspray. No attempt to spray should be made if the wind speed exceeds 6.7  $\text{ms}^{-1}$  (15 mph), unless precautions such as the use of wind barriers are taken.

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

14.4 The substrate should be primed, where required, and areas requiring extra Premium Reemat reinforcing mat, eg details and upstand, should be treated as described in sections 13.7 and 13.8. The substrate, once dry, will be ready for the main application of the system.

14.5 The system should be applied at the coverage rate given in Table 2. The Premium Reemat reinforcing mat should be embedded in the first coat while the membrane is still wet. Once the first coat is cured, the second coat should be applied. The finished dry thickness should be not less than 1.6 mm.

Table 2 Coverage rates ( $\text{lm}^{-2}$ )

Layer	Substrate texture		
	Smooth	Intermediate	Rough/porous/undulating
First layer – Base Coat	1.00	1.25	1.50
Second layer – Top Coat	1.00	1.00	1.00

14.6 Random tests should be carried out on the finished coating surface by cutting out small areas to measure finished cured thickness. Test areas should be repaired after the sample is taken.

## 15 Tests

Samples of the Decothane Gamma 20 Roof Coating System and ancillary products were supplied and prepared by Liquid Plastics Limited for the purpose of testing. The results of these tests, which show typical results for the materials, are summarised in Tables 3 and 4.

*Table 3 Physical properties — general*

Test (units)	Mean result	Method <sup>(1)</sup>
Ash content (%)	38.5	BS 2782-4.454A
Moisture absorption (%)	1.5	BS 2782-4.430A
Water vapour permeability ( $\text{gm}^{-2}\text{day}^{-1}$ )	4.7	BS 3177 (75% RH/25°C)
Water vapour resistance ( $\text{MNsg}^{-1}$ )	44.1	BS 3177 (75% RH/25°C)
Tensile strength ( $\text{Nmm}^{-2}$ )		BS EN ISO 527-3
unaged	12.3	
heat aged <sup>(2)</sup>	11.3	
UV aged <sup>(3)</sup>	13.1	
Elongation at break (%)		BS EN ISO 527-3
unaged	2.0	
heat aged <sup>(2)</sup>	1.5	
UV aged <sup>(3)</sup>	2.2	
Tear strength — nail (N)		MOAT 27 : 5.4.1
unaged	359	
heat aged <sup>(4)</sup>	258	
Low temperature flexibility (°C) <sup>(5)</sup>		MOAT 27 : 5.4.1
unaged	≤-20	
heat aged <sup>(4)</sup>	≤-20	
UV aged <sup>(6)</sup>	≤-20	

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

(2) Heat aged 200 days at 70°C.

(3) UV aged to EOTA TR 010 for 400  $\text{MJm}^{-2}$  severe conditions.

(4) Heat aged for 180 days at 60°C.

(5) Lowest temperature tested -20°C.

(6) UV aged 1500 light hours using UVB 313 lamps and a cycle of 4 hours UV at 50°C and 4 hours condensation at 50°C.

## 16 Investigations

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

16.2 Visits were made to sites in progress and established sites to assess the practicability of installation and performance in use.

16.3 A user survey was carried out to evaluate performance in use of Decothane systems.

16.4 Fire test data to BS 476-3 : 1958 were examined for the Gamma 20 system.

16.5 Infra-red characterisation was carried out for reference purposes.

16.6 Data provided were examined on the flashpoint of Decothane Top Coat.

Table 4 Performance tests

Test (units)	Mean result	Method <sup>(1)</sup>
Resistance to water pressure (6 m)	pass	MOAT 27 : 5.1.4
Static indentation <sup>(2)</sup>		EOTA TR 007
unaged		
steel	I <sub>4</sub>	
polyurethane foam	I <sub>1</sub>	
steel at 90°C	I <sub>3</sub>	
water exposure <sup>(3)</sup>		
steel at 90°C	I <sub>4</sub>	
Dynamic indentation <sup>(2)</sup>		EOTA TR 006
unaged		
steel	I <sub>4</sub>	
polyurethane foam	I <sub>2</sub>	
steel at -30°C	I <sub>4</sub>	
polyurethane foam at -30°C	I <sub>3</sub>	
UV aged <sup>(4)</sup>		
steel	I <sub>4</sub>	
polyurethane foam	I <sub>2</sub>	
Tensile bond strength (kPa)		EOTA TR 008
unaged		
concrete (unprimed)	1333	
concrete (primed)	1087	
asphalt	871	
mineralised roofing felt	309	
polyurethane foam	366	
galvanized steel	1668	
liquid bituminous coating	788	
aged Decothane <sup>(5)</sup>	1232	
GRP	1701	
water exposure <sup>(3)</sup>		
concrete (unprimed)	1544	
concrete (primed)	1722	
asphalt	178	
mineralised roofing felt	408	
polyurethane foam	217	
galvanized steel	424	
liquid bituminous coating	539	
aged Decothane <sup>(5)</sup>	1054	
GRP	1374	
Resistance to fatigue movement		EOTA TR 008
unaged	pass	
heat aged <sup>(6)</sup>	pass	

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

(2) Bonded to substrate.

(3) Water exposure 30 days at 60°C.

(4) UV aged to EOTA TR 010 for 1000 MJm<sup>-2</sup> severe conditions.

(5) Heat aged for 56 days at 70°C.

(6) Heat aged for 200 days at 60°C.



## Bibliography

- BS 476-3 : 1958 *Fire tests on building materials and structures — External fire exposure roof test*
- BS 747 : 1977 *Specification for roofing felts*
- BS 2782-4.430A to 430D : 1983 *Methods of testing plastics — Chemical properties — Determination of water absorption at 23°C — Determination of water absorption at 23°C with allowance for water-soluble matter — Determination of boiling water absorption — Determination of boiling water absorption with allowance for water-soluble matter*
- BS 2782-4.454A and 454B : 1978 *Methods of testing plastics — Chemical properties — Determination of ash — Determination of sulphated ash*
- BS 3177 : 1959 *Method for determining the permeability to water vapour of flexible sheet materials used for packaging*
- BS 6229 : 2003 *Flat roofs with continuously supported coverings — Code of practice*
- BS 7021 : 1989 *Code of practice for thermal insulation of roofs externally by means of sprayed rigid polyurethane (PUR) or polyisocyanurate (PIR) foam*
- BS 8217 : 2005 *Reinforced bitumen membranes for roofing — Code of practice*
- BS EN ISO 527-3 : 1996 *Plastics — Determination of tensile properties — Test conditions for films and sheets*
- prEN 1187 : 2000 *Test methods for external fire exposure to roofs*
- MOAT No 27 : 1983 *General Directive for the Assessment of Roof Waterproofing Systems*
- EOTA Technical Report TR 006 (May 1999), *Liquid Applied Roof Waterproofing Kits (LARWK) — Determination of the resistance to dynamic indentation*
- EOTA Technical Report TR 007 (May 1999), *Liquid Applied Roof Waterproofing Kits (LARWK) — Determination of the resistance to static indentation*
- EOTA Technical Report TR 008 (May 1999), *Liquid Applied Roof Waterproofing Kits (LARWK) — Determination of the resistance to fatigue movement*
- EOTA Technical Report TR 010 (May 1999), *Liquid Applied Roof Waterproofing Kits (LARWK) — Exposure procedure for artificial weather*

## 17 Conditions

17.1 This Certificate:

- relates only to the product/system that is named and described on the front page
- is granted only to the company, firm or person named on the front page — no other company, firm or person may hold or claim any entitlement to this Certificate
- 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.

17.2 References in this Certificate to any Act of Parliament, Statutory Instrument, Directive or Regulation of the European Union, British, European or International Standard, Code of Practice, manufacturers' instructions or similar publication, are references to such publication in the form in which it was current at the date of this Certificate.

17.3 This Certificate will remain valid for an unlimited period provided that the product/system and the manufacture and/or fabrication including all related and relevant 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.

17.4 In granting this Certificate, the BBA is not responsible for:

- 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
- individual installations of the product/system, including the nature, design, methods and workmanship of or related to the installation
- the actual works in which the product/system is installed, used and maintained, including the nature, design, methods and workmanship of such works.

17.5 Any information relating to the manufacture, supply, installation, use and maintenance 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 and maintained. It does 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; 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. 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 manufacture, supply, installation, use and maintenance of this product/system.



