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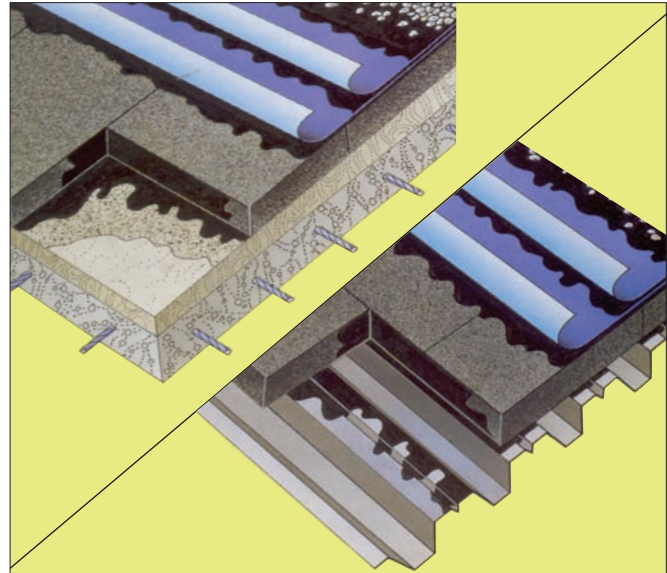
Agrément Certificate
No 97/3408

PRODUCT SHEET 1 — FOAMGLAS ROOF INSULATION**PRODUCT SCOPE AND SUMMARY OF CERTIFICATE**

This Certificate of Confirmation replaces Certificate No 94/3004/C and relates to Foamglas Roof Insulation, a glass insulation slab in conjunction with a suitable waterproofing system on flat roofs.

THIS CERTIFICATE INCLUDES:

- factors relating to compliance with UK 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**

Thermal performance — the product can be used to improve the thermal performance of a roof (see section 4).

Resistance to loading — the product incorporated in the roof system has adequate resistance to the loads associated with normal traffic on limited or unlimited access roofs (see section 5).

Condensation risk — roofs will limit the risk of surface and interstitial condensation adequately (see section 6).

Behaviour in relation to fire — the roof system using this product can be designed to meet the UK requirements concerning fire performance (see section 7).

Durability — the design life of the system under typical UK conditions has been considered and the product will remain effective as an insulant for the life of the building (see section 10).

The BBA has awarded this Agrément Certificate for Foamglas Roof Insulation to Pittsburgh Corning (UK) Ltd 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

Date of First issue: 30 September 1997

Date of Second issue: 23 August 2007

Greg Cooper: Chief Executive

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, Foamglas Roof Insulation, 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:	B4(2)	External fire spread
Comment:		When used in conjunction with appropriate roof decks and roof finishes, the product is unrestricted under this Requirement. See section 7.2 of this Certificate.
Requirement:	C2(c)	Resistance to moisture
Comment:		The product will contribute to enabling a roof to meet this Requirement. See sections 6.1 and 6.3 of this Certificate.
Requirement:	L1(a)(i)	Conservation of fuel and power
Comment:		See sections 4.2 to 4.5 of this Certificate.
Requirement:	Regulation 7	Materials and workmanship
Comment:		The product is an acceptable material. See section 10 of this Certificate.



The Building (Scotland) Regulations 2004 (as amended)

Regulation:	8	Fitness and durability of materials and workmanship
Regulation:	8(1)	Fitness and durability of materials and workmanship
Comment:		The product can contribute to a construction satisfying this Regulation. See section 10 and the <i>Installation</i> part of this Certificate.
Regulation:	9	Building standards – construction
Standard:	2.8	Spread from neighbouring buildings
Comment:		When used in conjunction with appropriate roof decks and roof finishes, the product is unrestricted under this Standard, with reference to clause 2.8.1 ⁽¹⁾⁽²⁾ . See sections 7.1 and 7.2 of this Certificate.
Standard:	3.15	Condensation
Comment:		The product will contribute to enabling a roof to satisfy this Standard, with reference to clauses 3.15.1 ⁽¹⁾ to 3.15.4 ⁽¹⁾ . See sections 6.2 and 6.3 of this Certificate.
Standard:	6.1(a)(b)	Carbon dioxide emissions
Standard:	6.2	Building insulation envelope
Comment:		The product can contribute to satisfying clauses, or parts of 6.1.1 ⁽¹⁾⁽²⁾ , 6.1.2 ⁽¹⁾ , 6.1.3 ⁽²⁾ , 6.2.1 ⁽¹⁾⁽²⁾ , 6.2.3 ⁽¹⁾ , 6.2.4 ⁽¹⁾⁽²⁾ , 6.2.5 ⁽¹⁾⁽²⁾ and 6.2.6 ⁽²⁾ of these Standards. See sections 4.2 to 4.5 of this Certificate. (1) Technical Handbook (Domestic). (2) Technical Handbook (Non-Domestic).



The Building Regulations (Northern Ireland) 2000 (as amended)

Regulation:	B2	Fitness of materials and workmanship
Comment:		The product is acceptable. See section 10 of this Certificate.
Regulation:	C5	Condensation
Comment:		The product will contribute to enabling a roof to meet this Regulation. See section 6.3 of this Certificate.
Regulation:	E5(b)	External fire spread
Comment:		When used in conjunction with appropriate roof decks and roof finishes, the product is unrestricted under this Regulation. See sections 7.1 and 7.2 of this Certificate.
Regulation:	F2(a)(i)	Conservation measures
Comment:		See sections 4.2 to 4.5 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 section: 11 *Installation* (11.3).

Non-regulatory information

NHBC Standards 2007

NHBC accepts the use of Foamglas Roof Insulation, when installed and used in accordance with this Certificate, in relation to NHBC Standards, Chapter 7.1 *Flat roofs and balconies*.

Zurich Building Guarantee Technical Manual 2007

In the opinion of the BBA, Foamglas Roof Insulation, when installed and used in accordance with this Certificate, satisfies the requirements of the *Zurich Building Guarantee Technical Manual*, Section 4 *Superstructure*.

General

Foamglas Roof Insulation is for use in conjunction with a suitable waterproofing system on flat roofs with limited and unlimited access, including car parking areas.

The product is imported and marketed in the UK by Pittsburgh Corning (UK) Ltd and is manufactured by Pittsburgh Corning Europe SA.

Confirmation of Belgian Agrément ATG No 04/1626 issued by Union Belge pour l'Agrément technique dans la construction (UBAtec) to Pittsburgh Europe Corning SA, Waterloo Office Park, Building C, Drève Richelle 151, B-1410 Waterloo, Belgium.

Technical Specification

1 Description

1.1 Foamglas Roof Insulation is a pure foamed cellular glass insulation slab and is available in three grades, T4 (WDS), T4 and S3, for use as a warm deck roof insulation.

1.2 Nominal dimensions and characteristics of the products are given in Tables 1 and 2 respectively.

Table 1 Nominal dimensions

Property	Grade	
	T4/T4 (WDS)	S3
Thickness ⁽¹⁾ (mm) ±2	40, 50, 60, 70, 80, 90, 100, 110, 120, 130, 140, 150, 150, 170, 180	40, 50, 60, 70, 80, 100, 110, 120, 130, 140, 150, 150, 170, 180
Length (mm) ±2	600	600
Width (mm) ±2	450	450

(1) Other thicknesses available to special order.

Table 2 Nominal characteristics

Property	Grade		
	T4 (WDS)	T4	S3
Density (kgm ⁻³)	110	120	135
Compressive strength (kNm ⁻²)	500	700	900
Flexural strength (kNm ⁻²)	400	400	500
Modulus of elasticity in bending (MNm ⁻²)	700	800	1200
Thermal conductivity at 10°C (Wm ⁻¹ K ⁻¹)	0.040	0.042	0.045

1.3 Quality control procedures, monitored by the Belgian Agrément authority, Union Belge pour l'Agrément technique dans la construction (UBAtec), include checks on general physical properties, dimensions and density.

2 Delivery and site storage

2.1 The product is delivered to site in pre-shrunk polyethylene wrappers. Each pack carries a label bearing the name of the marketing company, the product's name and the BBA identification mark incorporating the number of this Certificate.

2.2 Packs must be kept under cover and dry. Care must be taken during handling to avoid damage to the edges of the boards.

Assessment and Technical Investigations

The following is a summary of the assessment and technical investigations carried out on Foamglas Roof Insulation.

Design Considerations

3 Use

3.1 Foamglas Roof Insulation is for use as a thermal insulation layer on flat roofs with suitably designed concrete, metal or timber decks.

3.2 Decks should be designed in accordance with the relevant clauses of BS 8217 : 2005, CP 144-4 : 1970, BS 6229 : 2003 and, where appropriate, NHBC Standards 2007, Chapter 7.1 and *Zurich Building Guarantee Technical Manual 2007*.

3.3 Roof decks should be designed so that the maximum deflection due to dead and/or live loads, calculated without taking into account the stiffening effect due to the products, will not exceed 1/240 of the span or 1/300 where the troughs of metal decks exceed 90 mm in depth.

3.4 The product is for use with one of the following waterproofing specifications:

- built-up bitumen felt to BS 8747 : 2007 laid in accordance with BS 8217 : 2005
- mastic asphalt in accordance with BS 8218 : 1998
- other waterproofing systems which are the subject of a current Agrément Certificate laid in accordance with, and within the limitations imposed by, that Certificate.

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

3.6 For design purposes on 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.

3.7 When the product is used on a vehicle parking deck, it should be covered by rigid concrete slabs designed to distribute compressive loads so that they do not exceed 170 kNm⁻² for the T4/T4 (WDS) grades and 270 kNm⁻² for the S3 grade. It must be established first that the deck is capable of supporting the expected loads.

4 Thermal performance

4.1 Calculations of the thermal transmittance (U value) of a specific roof construction should be carried out in accordance with BS EN ISO 6946 : 1997 and BRE⁽¹⁾ report (BR 443 : 2006) *Conventions for U value calculations*, using the declared thermal conductivity (Wm⁻¹K⁻¹) for the insulation given in Table 3. Example U values for a typical flat roof construction are also given in Table 3.

(1) Building Research Establishment.

Table 3 Thermal conductivity and example U values

Insulation thickness (mm)	U value Wm ⁻² K ⁻¹		
	T4 (WDS), λ = 0.040 Wm ⁻¹ K ⁻¹	T4, λ = 0.042 Wm ⁻¹ K ⁻¹	S3, λ = 0.045 Wm ⁻¹ K ⁻¹
Concrete decking			
80	0.41	0.42	0.45
120	0.29	0.30	0.32
150	0.22	0.23	0.25
180	0.20	0.21	0.22
Timber decking			
80	0.39	0.41	0.43
120	0.28	0.30	0.31
150	0.22	0.23	0.24
180	0.20	0.21	0.22
Metal decking			
80	0.46	0.48	0.51
120	0.32	0.33	0.35
150	0.24	0.25	0.27
180	0.21	0.22	0.24

(1) Assuming thermal conductivity of timber decking value as 0.13 Wm⁻¹K⁻¹.

(2) Assuming screed: λ = 0.46 Wm⁻¹K⁻¹, Cast concrete: λ = 1.33 Wm⁻¹K⁻¹, dense plaster: λ = 0.57 Wm⁻¹K⁻¹, waterproofing bitumen felt: λ = 0.23 Wm⁻¹K⁻¹ to BS EN 12524 : 2000, plasterboard: λ = 0.21 Wm⁻¹K⁻¹.



4.2 The roof system contributes to meeting the requirements of the national Building Regulations.

England and Wales and Northern Ireland

- 0.16 Wm⁻²K⁻¹ required for 'notional' dwellings in SAP 2005 (see section 4.3)
- 0.25 Wm⁻²K⁻¹ required for buildings other than dwellings in SBEM
- 0.25 Wm⁻²K⁻¹ limit average U value specified in Approved Documents; L1A (Table 2), L2A (Table 4), Technical booklets F1 (Table 2.2) and F2 (Table 2.4)

Scotland

- 0.16 Wm⁻²K⁻¹ U value required for the 'notional' dwellings in SAP 2005 and the 'simplified approach — all fuel packages' in Mandatory Standard 6.1, clause 6.1.6⁽¹⁾ (see section 4.3)
- 0.20 Wm⁻²K⁻¹ maximum average U value specified Mandatory Standard 6.2, in clause 6.2.1⁽¹⁾ (see section 4.3)
- 0.25 Wm⁻²K⁻¹ U value required for 'notional' building in SBEM in Mandatory Standard 6.1, clause 6.1.3⁽²⁾
- 0.25 Wm⁻²K⁻¹ maximum U value specified for the insulation and 0.35 Wm⁻²K⁻¹ limit value for the individual elements as per Mandatory Standard 6.2, clause 6.2.1⁽¹⁾⁽²⁾.
- 0.35 Wm⁻²K⁻¹ limit value for the individual elements as per Mandatory Standard 6.2, clause 6.2.1⁽¹⁾⁽²⁾

(1) Technical Handbook (Domestic).

(2) Technical Handbook (Non Domestic).

4.3 Where a proposed roof U value is greater than the 'notional' value specified in section 4.2, additional energy saving measures will be required in the building envelope and/or services in order to achieve the required overall carbon dioxide emission rate reduction of about 20% in dwellings (18% to 25% in Scotland) and 23% to 28% for buildings other than dwellings.

4.4 Compliance with the guidance referred to in section 4.5 will allow the use of the default psi values from Table 3 of BRE Information Paper IP 1/06 *Assessing the effects of thermal bridging at junctions and around openings* and Table K1 of *The Government's Standard Assessment Procedure for Energy rating of Dwellings* (SAP 2005), in Target Emission Rate calculations to SAP 2005 or the Simplified Building Energy Model (SBEM) (use 'simplified approach' for Scotland).

4.5 The product can maintain, or contribute to maintaining, continuity of thermal insulation at junctions between roof and other building elements. Guidance in this respect and on limiting heat loss by air infiltration, can be found in:

England and Wales — *Limiting thermal bridging and air leakage : Robust construction details for dwellings and similar buildings* TSO 2002

Scotland — Accredited Construction Details (Scotland)

Northern Ireland — Accredited Construction Details (version 1.0).

5 Resistance to loading

5.1 The product has adequate resistance to the loads associated with normal traffic on limited or unlimited access roofs.

5.2 To prevent damage to the waterproofing system, high concentrated loads should be avoided when the product is used under a built-up bitumen felt, asphalt or non-traditional roofing specification (see section 3.4). Where concentrated loads are expected, the surfacing of the waterproofing system should take this into account.

6 Condensation risk

Surface condensation



6.1 Roofs will limit the risk of surface condensation adequately when the thermal transmittance (U value) does not exceed $0.35 \text{ Wm}^{-2}\text{K}^{-1}$ at any point, and the junctions with other elements are designed in accordance with *Limiting thermal bridging and air leakage: Robust construction details for dwellings and similar buildings* TSO 2002 or the BRE Information Paper IP 1/06.



6.2 For buildings in Scotland, other constructions will also be acceptable where the thermal transmittance (U value) of the roof does exceed $1.2 \text{ Wm}^{-2}\text{K}^{-1}$ at any point and openings and junctions with other elements comply with the guidance given in Section 8 of BS 5250 : 2002, BRE report (BR 262 : 2002) *Thermal insulation: avoiding risks* or Technical Booklet, Annex 6 D, of the Scottish Building Regulations.

Interstitial condensation



6.3 Roofs will limit the risk of interstitial condensation adequately when they are designed and constructed in accordance with BS 5250 : 2002 (Section 8 and Annex D).

6.4 Where an effective vapour control layer is difficult to ensure (eg where the boards have additional mechanical fixings), the risk of condensation should be assessed in accordance with Appendix A of BS 6229 : 2003.

7 Behaviour in relation to fire



7.1 The product is non-combustible and will not contribute to a fire or give off toxic fumes. The fire rating of any roof containing the product would depend heavily on the type of deck and the nature of the roof waterproof covering.



7.2 The designation of the roof covering containing the product must meet or satisfy the requirements of the national Building Regulations:

England and Wales — Approved Document B, Section 1.5. Notional designations of some common roof coverings are given in Appendix A, Table A5 of the Approved Document

Scotland — Mandatory Standard 2.8, clause 2.8.1⁽¹⁾⁽²⁾

(1) Technical Handbook (Domestic).

(2) Technical Handbook (Non-Domestic).

Northern Ireland — Technical Booklet E. If, on flat roofs, the waterproof covering is protected by one of the surface finishes defined in Part IV of Table 4.6 of Technical Booklet E, the roof is deemed to be of designation AA.

7.3 The designation of other specifications should be confirmed by test or assessment.

8 Adhesion

Adhesion of the product to the substrates referred to in section 12, and to the waterproofing layer, is adequate to resist the effects of wind suction and thermal cycling likely to be experienced in normal conditions.

9 Maintenance

No maintenance of the product will be required, provided the roof waterproofing remains intact.

10 Durability



The product, when used as a roof insulation in the systems described in this Certificate, will remain effective as an insulant for the life of the building.

Installation

11 General

11.1 Foamglas Roof Insulation must be installed in accordance with the Certificate holder's instructions, ie by traditional bitumen bonding techniques as described in the relevant clauses of BS 8217 : 2005, CP 144-4 : 1970 and of BS 6229 : 2003. Nails and screws must not be used.

11.2 Special care must be taken to ensure that the roof deck is flat and smooth and that each slab is continuously supported. In addition, concentrated point loads on the roof waterproofing during and after installation should be avoided.

11.3 When cut, the product releases a small amount of hydrogen sulfide and should therefore not be worked in an unventilated area. Appropriate caution should be exercised also where roofs incorporate air intakes for building ventilation systems. Gloves should be worn when handling the slabs.

11.4 The product should be kept dry, but should it come into contact with moisture it must be allowed to dry fully before the waterproofing layer is installed.

11.5 The product should be applied only when the ambient temperature is above 5°C.

11.6 The substrate should be clean, dry, and free of any irregularities in excess of 5 mm when measured under a 2 m rule.

11.7 The bitumen used should be of type 95/25 or type 115/15.

11.8 The product should be laid in parallel courses with staggered joints. If a second layer is used the joints should be staggered on the first layer.

11.9 The roof waterproofing layer should be applied as soon as possible after the insulation has been laid (see section 3.4). If work is interrupted, eg overnight, the exposed product should receive a protective coating of hot bitumen.

12 Procedure

Concrete decks

12.1 If the deck is composed of precast sections, irregularities between sections must not exceed 3 mm. An appropriate levelling screed should be applied if necessary.

12.2 The deck should be treated with a suitable bitumen primer at a coverage rate of 0.4 kgm⁻².

12.3 Once the primer coat is completely dry, the product should be pressed into hot bitumen poured onto the substrate at a coverage rate of 4 kgm⁻². Care should be taken to ensure that the hot bitumen is pressed well into the joints to give a good vapour seal (see Figure 1).

12.4 When using the product on a vehicle parking deck, the stipulations given in section 3.7 must be followed (see Figure 2).

Timber decks

12.5 In accordance with BS 8217 : 2005 a layer of felt to BS 8747 : 2007 or, if required, a vapour control layer, should be nailed to the deck with large-headed nails in accordance with BS 8217 : 2005. The felt should be butt jointed to avoid double thicknesses. The product can then be installed as for concrete decks (see section 12.3).

Metal decks (see Figure 3)

12.5 The deck should be treated with a suitable bitumen primer at a coverage rate of 0.15 kgm⁻².

12.6 Once the primer coat is completely dry, the product should be dipped into a tray of hot bitumen so that the lower face and two adjacent edges are covered completely. The product should then be pressed against the substrate and care should be taken to ensure that the hot bitumen is pressed well into the joints to give a good vapour seal.

12.7 The product should be placed ensuring their edges are supported and they are laid parallel to the ridges of the deck. The minimum recommended thicknesses of the product according to the span of troughs in metal decks are given in Table 4.

Figure 1 Installation on concrete decks

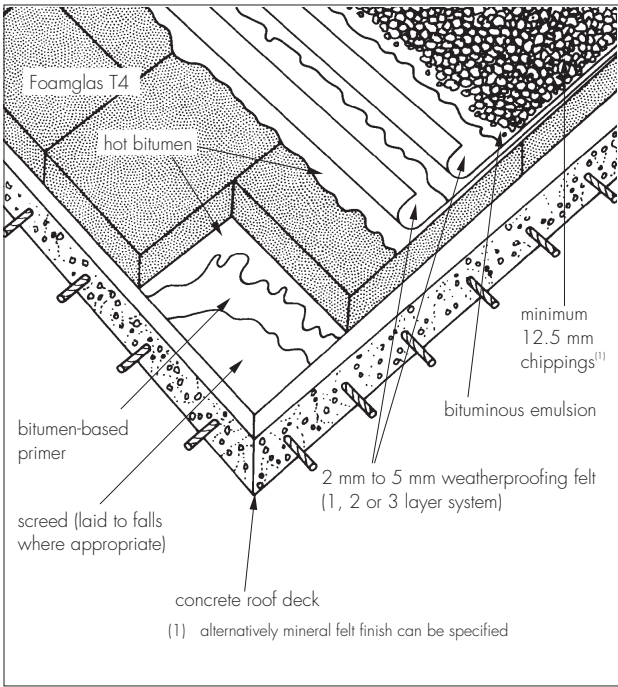


Figure 2 Installation details on car park decks

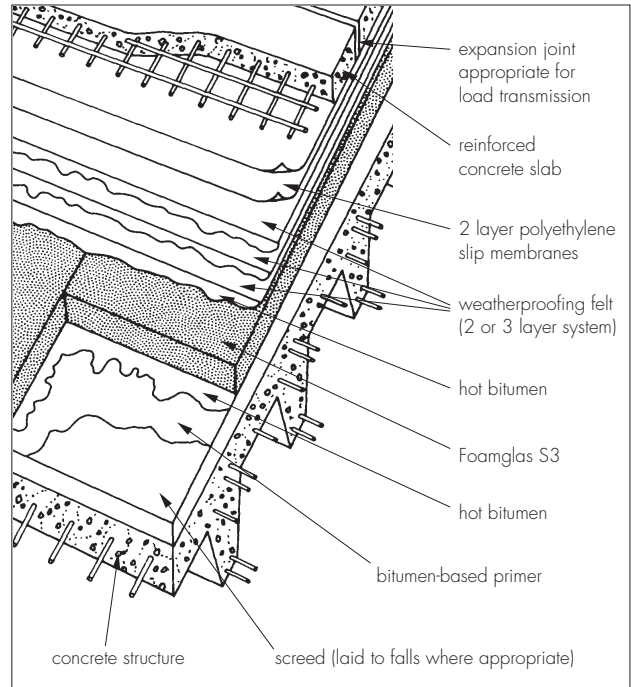


Figure 3 Installation details on metal deck roofs

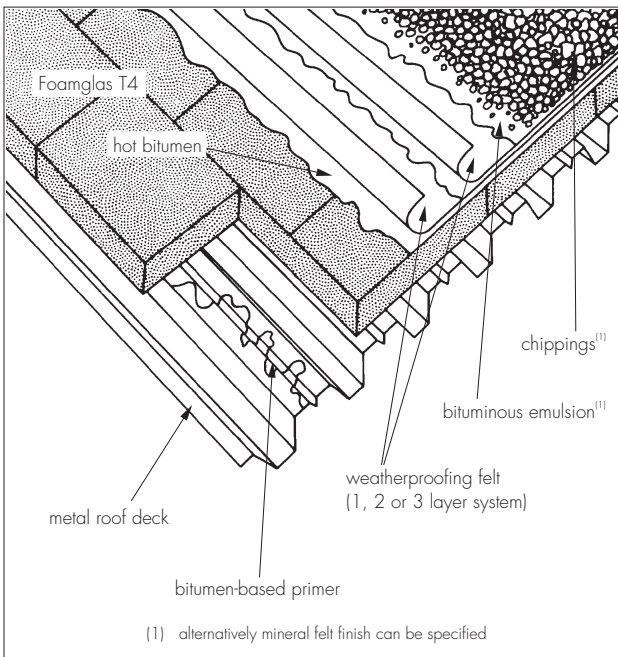


Table 4 Recommended minimum thicknesses for use on troughed metal decks

Maximum span of trough (mm)	Minimum thickness of Foamglas T4(WDS)/T4 (mm)
80	50
110	60
140	70

Technical Investigations

13 Tests

13.1 As part of the assessment leading to the issue of this Certificate test data on Foamglas Roof Insulation obtained by the UBAtc were examined. The results of individual tests carried out by the UBAtc, which show typical results for the materials, are summarised in Table 5.

13.2 As part of the assessment leading to the issue of a previous Certificate, No 82/976/C, tests on Foamglas were carried out by the UBAtc to determine:

- bulk density
- diameter of cells
- thermal expansion coefficient
- compressive strength
- flexural strength
- indentation resistance
- resistance to acids.

Table 5 Summary of test results

Characteristics	Manufacturer's criteria	Test methods
Compression (kPa)		EN 826
T4 (WDS)	CS(Y) 400 \geq 400	
T4	CS(Y) 700 \geq 700	
S3	CS(Y) 900 \geq 900	
Bending strength (kPa)		EN 12089
T4 (WDS)	BS \geq 400	
T4	BS \geq 450	
S3	BS \geq 500	
Perpendicular traction (kPa)		EN 1607
T4 (WDS)	TR \geq 100	
T4	TR \geq 100	
S3	TR \geq 100	
Concentrated load (mm)		EN 12430
T4 (WDS)	PL(P)2 \leq 2	
T4	PL(P)1 \leq 1	
S3	PL(P)1 \leq 1	
Water absorption (short term) (kgm ⁻³)		EN 1609
T4 (WDS)	WS \leq 0.5	
T4	WS \leq 0.5	
S3	WS \leq 0.5	
Reaction to fire		EN 13501-1
T4 (WDS)	A1	
T4	A1	
S3	A1	

14 Investigations

Independent test data relating to thermal conductivity were examined and evaluated.

Bibliography

- BS 5250 : 2002 *Code of practice for control of condensation in buildings*
- BS 6229 : 2003 *Flat roofs with continuously supported coverings — Code of practice*
- BS 8217 : 2005 *Reinforced bitumen membranes for roofing — Code of practice*
- BS 8218 : 1998 *Code of practice for mastic asphalt roofing*
- BS 8747 : 2007 *Reinforced bitumen membranes (RBMs) for roofing. Guide to selection and specification*
- BS EN 12524 : 2000 *Building materials and products — Hygrothermal properties — Tabulated design values*
- BS EN ISO 6946 : 1997 *Building components and building elements — Thermal resistance and thermal transmittance — Calculation method*
- CP 144-4 : 1970 *Roof coverings — Mastic asphalt. Metric units*
- EN 826 : 1996 *Thermal insulating products for building applications — Determination of compression behaviour*
- EN 1607 : 1997 *Thermal insulating products for building applications — Determination of tensile strength perpendicular to faces*
- EN 1609 : 2006 *Thermal insulating products for building applications — Determination of short term water absorption by partial immersion*
- EN 12089 : 1997 *Thermal insulating products for building applications — Determination of bending behaviour*
- EN 12430 : 2006 *Thermal insulating products for building applications — Determination of behaviour under point load*
- EN 13501-1 : 2002 *Fire classification of construction products and building elements. Classification using test data from reaction to fire tests*

15 Conditions

15.1 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.

15.2 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.

15.3 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
- remain covered by a valid Belgian Agrément; and
- are reviewed by the BBA as and when it considers appropriate.

15.4 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.

15.5 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.

