

IKO PLC

Appley Lane North
Appley Bridge
Wigan
Lancashire WN6 9AB

Tel: 01257 256888

e-mail: technical.uk@iko.com

website: www.ikogroup.co.uk



Agrément Certificate

03/4009

Product Sheet 4 Issue 1

PERMATEC HOT MELT ROOFING AND WATERPROOFING SYSTEMS

PERMATEC LI HOT MELT ROOF WATERPROOFING SYSTEM

This Agrément Certificate Product Sheet⁽¹⁾ relates to the Permateg LI Hot Melt Roof Waterproofing System, for use as a waterproofing layer in protected flat roofs (including zero fall), inverted roofs and blue roof specifications in combination with a storm water attenuation system⁽²⁾.

(1) Hereinafter referred to as 'Certificate'.

(2) The storm water attenuation system is outside the scope of the Certificate.

The assessment includes

Product factors:

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

Process factors:

- compliance with Scheme requirements
- installation, delivery, handling and storage
- production and quality controls
- maintenance and repair

Ongoing contractual Scheme elements†:

- regular assessment of production
- formal 3-yearly review



KEY FACTORS ASSESSED

- Section 1. Mechanical resistance and stability
- Section 2. Safety in case of fire
- Section 3. Hygiene, health and the environment
- Section 4. Safety and accessibility in use
- Section 5. Protection against noise
- Section 6. Energy economy and heat retention
- Section 7. Sustainable use of natural resources
- Section 8. Durability

The BBA has awarded this Certificate to the company named above for the system described herein. This system has been assessed by the BBA as being fit for its intended use provided it is installed, used and maintained as set out in this Certificate.

On behalf of the British Board of Agrément

Date of issue: 20 September 2024

Hardy Giesler
Chief Executive Officer

This BBA Agrément Certificate is issued under the BBA's Inspection Body accreditation to ISO/IEC 17020. Sections marked with † are not issued under accreditation.

The BBA is a UKAS accredited Inspection Body (No. 4345), Certification Body (No. 0113) and Testing Laboratory (No. 0357).

Readers MUST check that this is the latest issue of this Agrément Certificate by either referring to the BBA website or contacting the BBA directly.

The Certificate should be read in full as it may be misleading to read clauses in isolation.

Any photographs are for illustrative purposes only, do not constitute advice and should not be relied upon

British Board of Agrément

1st Floor, Building 3, Hatters Lane
Croxley Park, Watford
Herts WD18 8YG

©2024

tel: 01923 665300
clientservices@bbacerts.co.uk
www.bbacerts.co.uk

SUMMARY OF ASSESSMENT AND COMPLIANCE

This section provides a summary of the assessment conclusions; readers should refer to the later sections of this Certificate for information about the assessments carried out.

Compliance with Regulations

Having assessed the key factors, the opinion of the BBA is that the Permatest LI Hot Melt Roof Waterproofing System, if installed, used and maintained in accordance with this Certificate, can satisfy or contribute to satisfying the relevant requirements of the following Building Regulations:



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

Requirement:	B4(2)	External fire spread
Comment:		The system, when used with suitable surface protection, may enable a roof to be unrestricted by this Requirement. See section 2 of this Certificate.
Requirement:	C2(b)	Resistance to moisture
Comment:		The system will enable a roof to satisfy this Requirement. See section 3 of this Certificate.
Regulation:	7(1)	Materials and workmanship
Comment:		The system is acceptable. See sections 8 and 9 of this Certificate.



The Building (Scotland) Regulations 2004 (as amended)

Regulation:	8(1)(2)	Fitness and durability of materials and workmanship
Comment:		The use of the system can satisfy this Regulation. See sections 8 and 9 of this Certificate.
Regulation:	9	Building standards – construction
Standard:	2.8	Spread from neighbouring buildings
Comment:		The system, when used with suitable surface protection, may enable a roof to be unrestricted by this Standard, with reference to clause 2.8.1 ⁽¹⁾⁽²⁾ . See section 2 of this Certificate
Standard:	3.10	Precipitation
Comment:		The system will enable a roof to satisfy this Standard, with reference to clauses 3.10.1 ⁽¹⁾⁽²⁾ and 3.10.7 ⁽¹⁾⁽²⁾ . See section 3 of this Certificate
Standard:	7.1(a)	Statement of sustainability
Comment:		The system can contribute to satisfying 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.
Regulation:	12	Building standards – conversion
Comment:		Comments given for the system under Regulation 9, Standards 1 to 6, also apply to this Regulation, with reference to clause 0.12.1 ⁽¹⁾⁽²⁾ and Schedule 6 ⁽¹⁾⁽²⁾

(1) Technical Handbook (Domestic).

(2) Technical Handbook (Non-Domestic).



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

Regulation:	23(1)(a)(i)(ii)	Fitness of materials and workmanship
Comment:	(iii)(iv)(b)(i)	The system is acceptable. See sections 8 and 9 of this Certificate.
Regulation:	28(b)	Resistance to moisture and weather
Comment:		The system will enable a roof to satisfy this Regulation. See section 3 of this Certificate.
Regulation:	36(b)	External fire spread
Comment:		The system, when used with suitable surface protection, may enable a roof to be unrestricted by this Regulation. See section 2 of this Certificate.

Additional Information

NHBC Standards 2024

In the opinion of the BBA, the Permateg LI Hot Melt Roof Waterproofing System, if installed, used and maintained in accordance with this Certificate, can satisfy or contribute to satisfying the relevant requirements in relation to *NHBC Standards*, Chapter 7.1 *Flat roofs, terraces and balconies*.

In addition, in the opinion of the BBA, the system, when installed and used in accordance with this Certificate can satisfy or contribute to satisfying the relevant requirements in relation to *NHBC Standards for Conversions and Renovations*, taking account of other relevant guidance within the chapter and the suitability of the substrate to receive the system.

The *NHBC Standards* do not cover the refurbishment of existing roofs.

Fulfilment of Requirements

The BBA has judged the Permateg LI Hot Melt Roof Waterproofing System to be satisfactory for use as described in this Certificate. The system has been assessed as a waterproofing system in protected flat roofs (including zero fall), inverted roofs and blue roof specifications, in combination with a storm water attenuation system.

ASSESSMENT

Product description and intended use

The Certificate holder provided the following description for the system under assessment. The Permateg LI Hot Melt Roof Waterproofing System comprises a combination of refined bitumen, synthetic rubbers and other additives. The membrane is applied in two layers to provide a waterproofing layer with a nominal coating thickness of 6 mm.

Ancillary items

PermaFLASH-R is a 55 g·m⁻² polyester reinforcing scrim that is essential to use with the system and has been assessed with the system.

The Certificate holder recommends the following ancillary items for use with the system, but these materials have not been assessed by the BBA and are outside the scope of this Certificate:

- PermaGUARD-PB — a 3.2 mm thick protection board fabricated with a bituminous core sandwiched between two layers of non-woven glassfibre reinforcement
- IKO Permateg High Penetration Primer — a brush or roller-applied bituminous priming solution used in the preparation of cementitious surfaces prior to the application of the system
- IKO Permateg Polymer Primer — a brush or roller-applied synthetic rubber-based priming solution used in the preparation of cementitious surfaces prior to the application of the system

- PermaFLASH-D150 — a detailing sheet, used as a reinforcement layer over cracks, construction joints and changes in materials, and where minor movement may occur
- PermaFLASH-D500 — a detailing sheet, used as a reinforcement at rainwater outlets
- PermaGUARD-HDPB — a polymeric protection board
- PermaGUARD-M — a torch-applied bitumen membrane protection layer for use on details which will not be covered by the surface finishes
- PermaGUARD-F — a protection layer
- Foamglass insulation — cellular glass insulation slabs
- IKO Plasdrain — a range of drainage boards
- Inverted Roof Insulation Board — insulation used in inverted/protected roof specifications
- Upstand Insulation Board — insulation used for upstand detailing
- proprietary expansion joint systems
- PermaFLASH-UN — a reinforcement sheet used at construction joints and where minor structural movement is anticipated.

Applications

The system is intended for use as a waterproofing layer on protected flat roofs, including zero fall, with limited access in:

- inverted roof specifications
- protected roof specifications
- podium decks and walkways for pedestrian access
- blue roof specifications in combination with a storm water attenuation system⁽¹⁾.

(1) The storm water attenuation system is outside the scope of the Certificate.

The system is suitable for use on the following substrates:

- in-situ structural concrete
- precast concrete
- concrete block
- timber
- Foamglass insulation (with a minimum compressive strength of 400 kPa)
- modified screeds and levelling compounds
- flat metal decks
- profiled metal decks with a suitable cover board.

Definitions for products and applications inspected

- limited access roofs — a roof subjected only to pedestrian traffic for maintenance of the roof covering, cleaning of gutters, etc
- pedestrian access roof — a roof that is not subjected to vehicular traffic
- zero fall roofs — a roof having a minimum finished fall between 0 and 1:80
- flat roof — a roof having a minimum finished fall of 1:80
- pitched roof — a roof having a fall in excess of 1:6
- blue roofs — flat or zero fall roofs which are designed to allow controlled attenuation of rain fall during heavy and storm events, as part of sustainable urban drainage systems (SUDS)⁽¹⁾.

(1) The stormwater attenuation and drainage systems are outside the scope of this Certificate.

Product assessment – key factors

The system was assessed for the following key factors, and the outcome of the assessment is shown below. Conclusions relating to the Building Regulations apply to the whole of the UK unless otherwise stated.

1 Mechanical resistance and stability

Not applicable.

2 Safety in case of fire

Data were assessed for the following characteristic.

2.1 External fire spread

2.1.1 A roof incorporating the system will be unrestricted by the documents supporting the national Building Regulations with respect to proximity to a relevant boundary when protected by an inorganic covering (eg gravel or paving slabs) listed in the Annex of Commission Decision 2000/553/EC.

2.1.2 In Wales and Northern Ireland, when used using a substrate designated in the supporting documents with the surface finishes listed below, a roof incorporating the system will be similarly unrestricted:

- bitumen-bedded stone chippings covering the whole surface to a depth of not less than 12.5 mm
- bitumen-bedded tiles of a non-combustible material
- sand and cement screed
- macadam.

2.1.3 The classification and permissible areas of use of other specifications must be confirmed by reference to the requirements of the documents supporting the national Building Regulations.

3 Hygiene, health and the environment

Data were assessed for the following characteristics.

3.1 Weathertightness

3.1.1 The weathertightness of the system was assessed using test data from a representative related system and met the requirement of remaining watertight when subjected to a six metre head of water for 24 hours.

3.1.2 On the basis of data assessed, the system will adequately resist the passage of moisture to the interior of a building and so satisfy the relevant requirements of the national Building Regulations.

3.2 Resistance to mechanical damage

3.2.1 Results of resistance to mechanical damage tests are given in Table 1.

System assessed	Assessment method	Requirement	Result
Permatec LI Hot Melt Roof Waterproofing System	Low temperature flexibility to BS EN 15813 : 2011	Value achieved	0°C
PermaFLASH-R	Tensile strength to BS EN 29073-3 : 1992 longitudinal direction	Value achieved	154 N
	transverse direction		66 N
PermaFLASH-R	Elongation to BS EN 29073-3 : 1992 longitudinal direction	Value achieved	30.6%
	transverse direction		41.8%

3.2.2 The tensile properties, resistance to indentation and fatigue properties of the system were also assessed using test data from a representative related system.

3.2.3 On the basis of data assessed, the system can accept, without damage, the limited foot traffic and light concentrated loads associated with installation and maintenance and the effects of minor structural movement likely to occur under normal service conditions while remaining weathertight.

3.2.4 Where traffic in excess of the examples given in section 3.2.3 is envisaged, such as for maintenance of lift equipment or pedestrian areas, suitable protection (for example, using concrete slabs supported on bearing pads) must be used. Reasonable care must be taken to avoid puncture of the systems by sharp objects or concentrated loads.

4 Safety and accessibility in use

Not applicable.

5 Protection against noise

Not applicable.

6 Energy economy and heat retention

Not applicable.

7 Sustainable use of natural resources

7.1.1 The Permateg LI Waterproofing System compound has a recycled content of 45% by mass of the total product.

7.1.2 The recycled materials are limestone filler and ground rubber crumb, the latter manufactured from post-consumer vehicular tyres. Post-consumer material is defined in BS EN ISO 14021 : 2016, and the Waste & Resources Action Programme (WRAP) 'Rules of Thumb' Guide to Recycled Content in Construction Products.

7.1.3 The recycled content has been calculated in accordance with BS EN ISO 14021 : 2016 by expressing the input mass of recycled material as a percentage of the total input mass for the product.

7.1.4 The source and quantity of recycled material added to the product is verified by the BBA as part of post Certification auditing.

8 Durability

8.1 The potential mechanisms for degradation and the known performance characteristics of the materials in this system were assessed.

8.2 Specific test data were assessed for the following.

Table 2 Results of durability tests

System assessed	Assessment method	Requirement	Result
Permateg LI Hot Melt Roof Waterproofing System	Dimensional stability to BS EN 15818 : 2011	No sliding or draining down	Pass

8.3 The durability of the system was further assessed using test data from a representative related system.

8.4 Service life

Under normal service conditions, the system will have a life of at least equivalent to the structure in which it is incorporated, provided it is designed, installed and maintained in accordance with this Certificate and the Certificate holder's instructions.

PROCESS ASSESSMENT

Information provided by the Certificate holder was assessed for the following factors:

9 Design, installation, workmanship and maintenance

9.1 Design

9.1.1 The design process was assessed by the BBA, and the following requirements apply in order to satisfy the performance specified in this Certificate.

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

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

9.1.4 Structural decks to which the system is to be applied must be suitable to transmit the dead and imposed loads experienced in service. Allowance needs to be made for loading deflections to ensure that the free drainage of water is maintained.

9.1.5 Imposed loads, dead loading and wind loads must be calculated by a suitably experienced and competent individual in accordance with BS EN 1991-1-1 : 2002, BS EN 1991-1-3 : 2003 and BS EN 1991-1-4 : 2005, and their UK National Annexes.

9.1.6 The ballast requirements for inverted specifications must be calculated by a suitably experienced and competent individual in accordance with the principles of BS EN 1991-1-4 : 2005 and its UK National Annex. The system must be ballasted with a minimum depth of 50 mm of aggregate. In areas of high wind exposure, the Certificate holder's advice must be sought, but this is outside the scope of this Certificate.

9.1.7 When the system is used in gravel-ballasted protected roof or inverted roof specifications, a suitable filter layer/water-reducing layer must be used between the ballast and the rest of the specification.

9.1.8 The ballast on protected roofs must be of a type that will not be removed or become delocalised owing to wind scour experienced on the roof.

9.1.9 The drainage systems for inverted roofs, zero fall roofs and blue roofs must be correctly designed, and the following points must be addressed:

- provision made for access for maintenance purposes
- for protected zero fall roofs it is particularly important to identify the correct drainage points, to ensure that drainage is sufficient and effective
- for inverted roof specifications, the approach given in BBA Information Bulletin No 4 *Inverted roofs – Drainage and U value corrections* must be followed
- the attenuation system and drainage for blue roofs must be designed by a suitably competent and experienced individual to allow the short-term storage and discharge at a set flow rate of storm water to alleviate the risk of localised flooding.

9.1.10 The resistance to wind uplift for warm roofs will be dependent on the cohesive strength of the insulation and the method by which it is secured to the roof deck. This must be taken into account when selecting a suitable insulation material.

9.1.11 Insulation materials to be used in conjunction with the system must be in accordance with the Certificate holder's instructions, and must be either:

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

9.2 Installation

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

9.2.2 Installation of the system must be in accordance with the relevant clauses of BS 6229 : 2018, BS 8000-0 : 2014 and BS 8000-4 : 1989 and BS 8217 : 2005, the Certificate holder's instructions and this Certificate. A summary of typical design specifications and guidance is provided in Annex A.

9.2.3 The system must be installed on a dry and frost-free substrate. After rain or snow, the substrate must be allowed to dry before installation can commence. The installer can aid drying by any suitable means approved by the Certificate holder, but such advice is outside the scope of this Certificate.

9.2.4 The surface of a concrete substrate must be sound and free of contaminants with a surface finish in accordance with the Certificate holder's instructions.

9.2.5 Prior to the application of the system, defects in the substrate such as cracks, irregularities and other areas of potential weakness must be repaired using an approved repair mortar, and the substrate cleaned in accordance with the Certificate holder's instructions. Additional membrane may be used to fill minor depressions in the substrate.

9.2.6 Cementitious substrates must be coated with a suitable primer and allowed to dry before application of the systems. The Certificate holder can advise on suitable materials, but such advice and products are outside the scope of this Certificate.

9.2.7 Bulk material must not be stored on one area of the roof prior to installation, to ensure that localised overloading does not occur.

9.2.8 Blocks of the membrane compound are heated in a mechanically agitated melter, which must have a double jacket containing either air or a heat-transfer mineral oil and be fitted with thermometers to measure the melt and air/oil temperatures.

9.2.9 The nominal temperature range for the molten membrane is 160 to 180°C. The temperature of the melt must not exceed 190°C.

9.2.10 The molten membrane must be discharged from the melter into a suitable container and applied to the roof, using a long-handled squeegee for horizontal surfaces and a suitable spreader for vertical surfaces.

9.2.11 At structural movement joints between 12 and 50 mm (maximum 50% total movement), a proprietary joint system must be installed. The Certificate holder can advise on suitable materials, but such advice and products are outside the scope of this Certificate.

9.2.12 At all non-monolithic changes in substrate materials, at structural/shrinkage cracks between 3 and 6 mm wide, at structural joints between 6 and 12 mm wide and where minor movement may occur, an appropriate detailing sheet must be applied prior to applying the system. The Certificate holder can advise on suitable materials, but such advice and products are outside the scope of this Certificate.

9.2.13 At all joints in suitable cover boards, precast concrete and composite metal decks, an appropriate detailing sheet must be applied prior to applying the system. The advice of the Certificate holder must be sought, but such advice is outside the scope of this Certificate.

9.2.14 The first layer of the molten membrane must have a nominal thickness of 3 mm.

9.2.15 PermaFLASH-R polyester reinforcing scrim must be embedded by lightly brushing it into the first layer of the membrane whilst it is still hot and tacky. The reinforcement overlaps must be at least 75 mm and fully sealed by the molten membrane.

9.2.16 The second layer of the membrane, applied over the top of the reinforcement, must have a nominal thickness of 3 mm.

9.2.17 The system must be protected immediately with an appropriate protection layer. This must be carried out prior to applying the insulation, water control layer and the protective layer or other specified surface finish (see Figures 1 to 7 in Annex A for typical design specifications). The Certificate holder can advise on suitable materials, but such advice and products are outside the scope of this Certificate.

9.2.18 Detailing (eg upstands) must be carried out in accordance with the Certificate holder's instructions.

9.2.19 The NHBC requires that the system, once installed, is inspected in accordance with *NHBC Standards 2024*, Chapter 7, Clause 7.1.11, including undergoing an appropriate integrity test, where required. Any damage to the system

assessed in this Certificate must be repaired in accordance with section 9.4 of this Certificate and reinspected, in order to maintain system performance.

9.3 Workmanship

Practicability of installation was assessed by the BBA and on the basis of the Certificate holder's information. To achieve the performance described in this Certificate, installation of the system must be carried out by installers who have been trained and approved by the Certificate holder.

9.4 Maintenance and repair

9.4.1 Ongoing satisfactory performance of the system in use requires that it is suitably maintained. The guidance provided by the Certificate holder was assessed and found to be appropriate and adequate.

9.4.2 The following requirements apply in order to satisfy the performance assessed in this Certificate:

9.4.2.1 The system must be the subject of visual six-monthly inspections and maintenance in accordance with the recommendations in BS 6229 : 2018, Chapter 7, and the Certificate holder's own maintenance requirements. These inspections must be carried out by a suitably experienced individual to ensure continued satisfactory performance. This must include an examination of the condition of the roof finishes and ensure that drain outlets and gutters are kept clear and unblocked.

9.4.2.2 In instances of a leak occurring in the roof waterproof membrane, it must be repaired following removal of the gravel ballast, paving ballast, water-flow-reducing layer and the insulation boards. Correct reinstatement of these layers must be carried out with particular care. The advice of the Certificate holder must be sought, but such advice is outside the scope of this Certificate.

9.4.2.3 Maintenance must include checks and operations to ensure that the system and drainage outlets are free from the build-up of silt and other debris, and that protection layers, eg walkways, are in good condition.

9.4.2.4 In the event of the system being contaminated by oil, grease or other chemicals, the advice of the Certificate holder must be sought, but such advice is outside the scope of this Certificate.

9.4.2.5 Any damage to the system must be repaired as soon as possible to ensure that the integrity of the waterproofing is maintained. The advice of the Certificate holder must be sought, but such advice is outside the scope of this Certificate.

9.4.2.6 Where maintenance or repair of any of the roof components above the waterproofing system is necessary, care must be taken to avoid damage to the membrane. If damage to the membrane occurs, then it must be repaired in accordance with the Certificate holder's instructions.

10 Manufacture

10.1 The production processes for the system have been assessed, and provide assurance that the quality controls are satisfactory according to the following factors:

10.1.1 The manufacturer has provided documented information on the materials, processes, testing and control factors.

10.1.2 The quality control operated over batches of incoming materials has been assessed and deemed appropriate and adequate.

10.1.3 The quality control procedures and product testing to be undertaken have been assessed and deemed appropriate and adequate.

10.1.4 The process for management of non-conformities has been assessed and deemed appropriate and adequate.

10.1.5 An audit of each production location was undertaken, and it was confirmed that the production process was in accordance with the documented process, and that equipment has been properly tested and calibrated.

† 10.2 The BBA has undertaken to review the above measures on a regular basis through a surveillance process, to verify that the specifications and quality control operated by the manufacturer are being maintained.

11 Delivery and site handling

11.1 The Certificate holder stated that the hot melt component is delivered to site in 12 kg blocks covered with EcoWrap heat-dispersible film.

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

11.2.1 Reinforcing must be stored under cover and kept dry.

ANNEX A – SUPPLEMENTARY INFORMATION †

Supporting information in this Annex is relevant to the system but has not formed part of the material assessed for the Certificate.

Construction (Design and Management) Regulations 2015

Construction (Design and Management) Regulations (Northern Ireland) 2016

Information in this Certificate may assist the client, designer (including Principal Designer) and contractor (including Principal Contractor) to address their obligations under these Regulations.

CLP Regulations

The Certificate holder has taken the responsibility of classifying and labelling the system components under the *GB CLP Regulation* and *CLP Regulation (EC) No 1272/2008 - classification, labelling and packaging of substances and mixtures*. Users must refer to the relevant Safety Data Sheet(s).

Management Systems Certification for production

The management system of the manufacturer has been assessed and registered as meeting the requirements of BS EN ISO 9001 : 2015 by BSI (Certificate FM 595512).

The management system of the manufacturer has been assessed and registered as meeting the requirements of BS EN ISO 14001 : 2015 by Lucideon (Certificate 24709) and BES 6001 : Issue 3.1 by Lucideon (Certificate 24703).

Additional Information

A.1 For zero fall roofs reference must be made to the appropriate clauses in Liquid Roofing and Waterproofing Association (LRWA) Note 7 – *Specifier Guidance for Flat Roof Falls*.

A.2 Guidance on the design of blue roofs is available in NFRC *Technical Guidance Note for the construction and design of Blue Roofs – Roofs and podiums with controlled temporary water attenuation*.

A.3 Typical design specifications are shown in Figures 1 to 7.

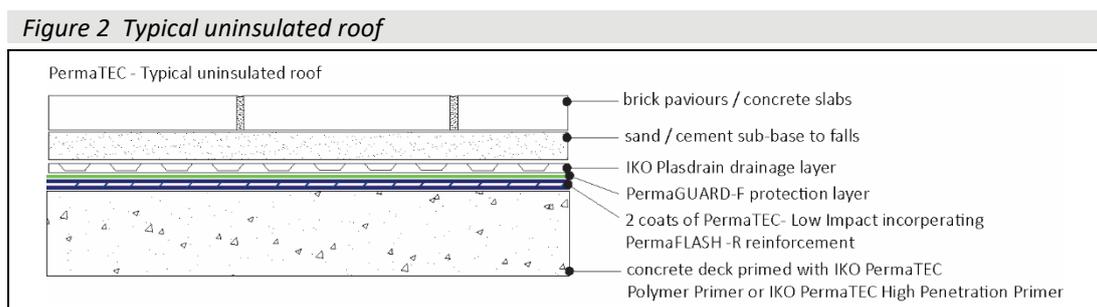
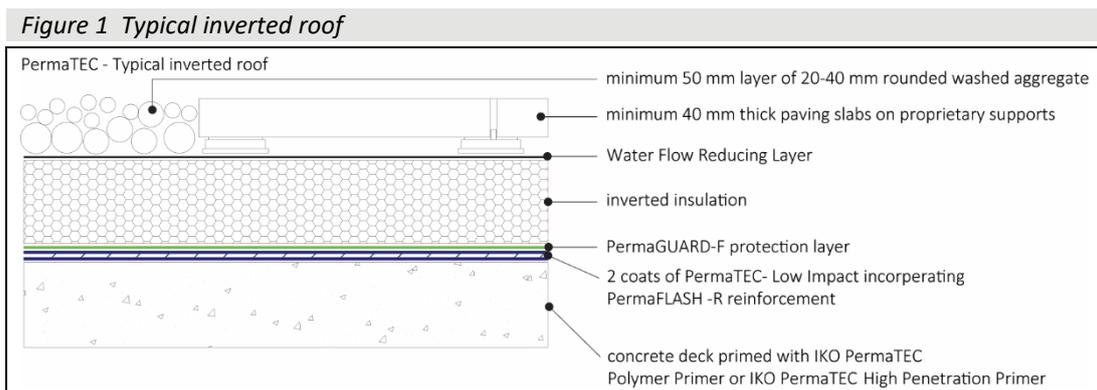


Figure 3 Typical rainwater outlet inverted roof

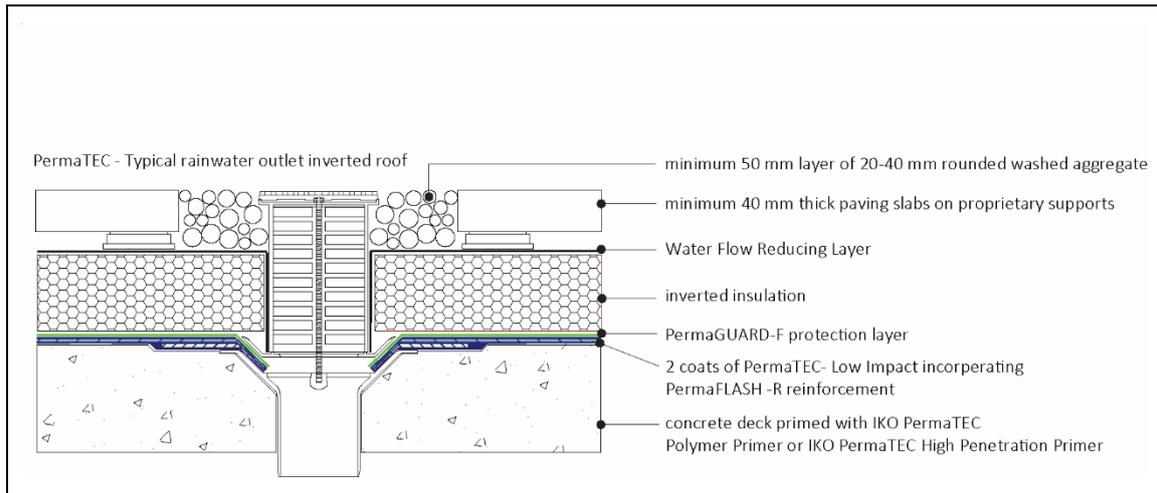


Figure 4 Typical soil pipe penetration inverted roof

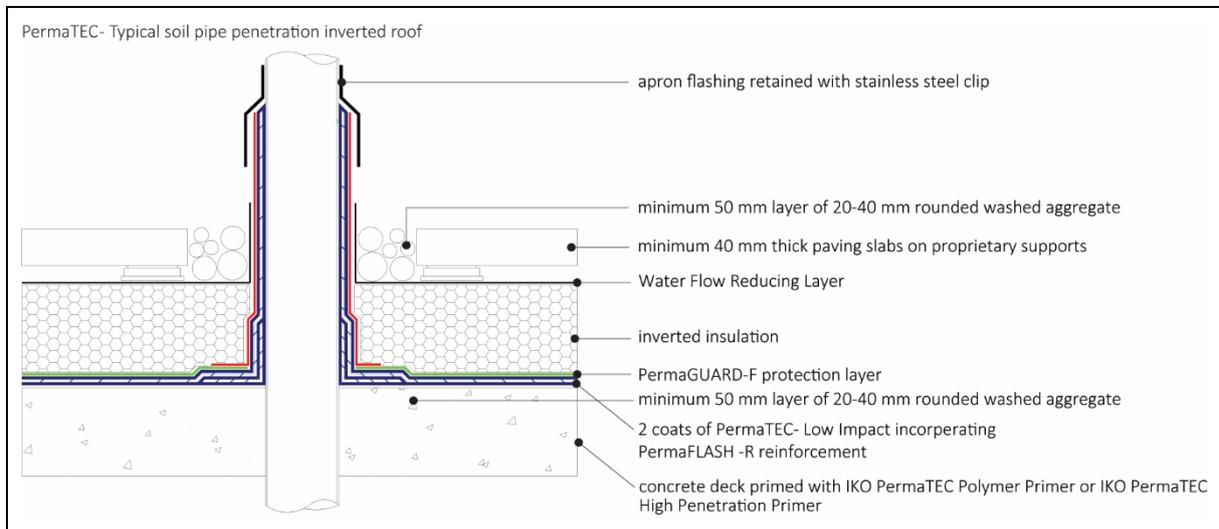


Figure 5 Typical parapet capping detail

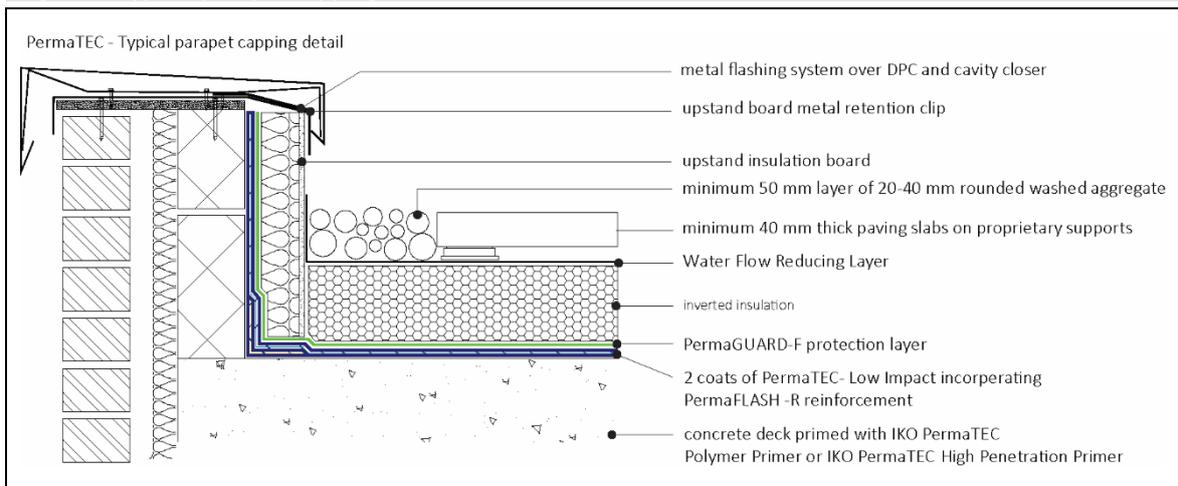


Figure 6 Typical upstand detail

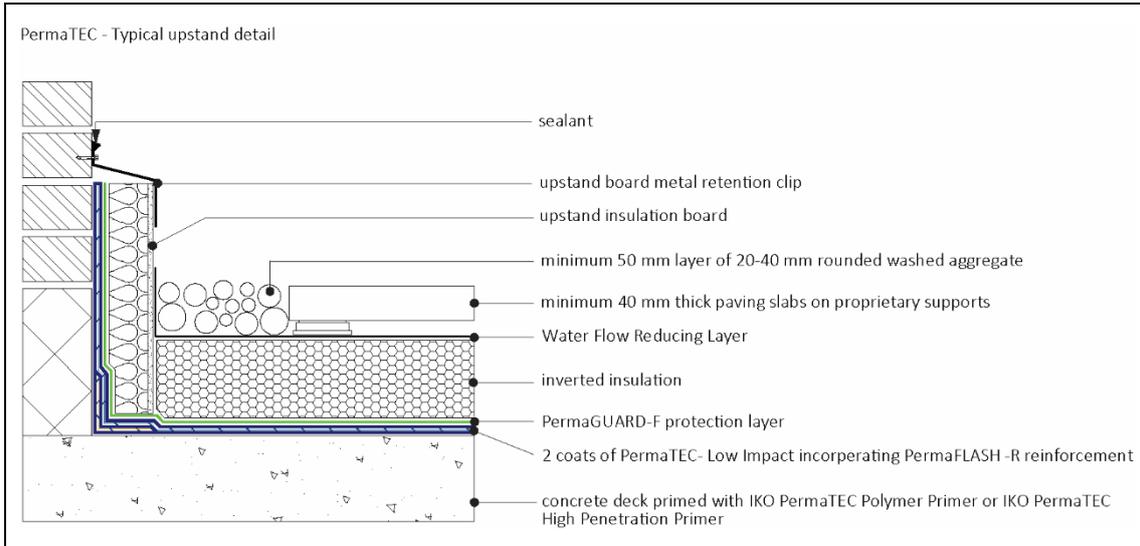
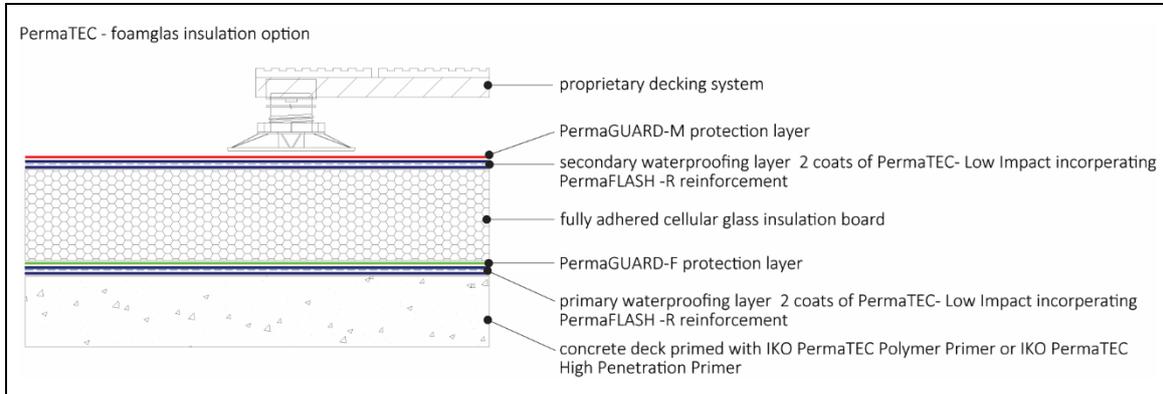


Figure 7 Insulation option



Bibliography

- BS 6229 : 2018 *Flat roofs with continuously supported flexible waterproof coverings — Code of practice*
- BS 8217 : 2005 *Reinforced bitumen membranes for roofing — Code of practice*
- BS 8000-0 : 2014 + A1 : 2024 *Workmanship on construction sites — Introduction and general principles*
BS 8000-4 : 1989 *Workmanship on building sites — Code of practice for waterproofing*
- BS EN 15813 : 2011 *Polymer modified bituminous thick coatings for waterproofing — Determination of flexibility at low temperatures*
- BS EN 15818 : 2011 *Polymer modified bituminous thick coatings for waterproofing — Determination of dimensional stability at high temperature*
- BS EN 1991-1-1 : 2002 *Eurocode 1 : Actions on structures — General actions— Densities, self-weight, imposed loads for buildings*
NA to BS EN 1991-1-1 : 2002 *UK National Annex to Eurocode 1 : Actions on structures — General actions— Densities, self-weight, imposed loads for buildings*
- BS EN 1991-1-3 : 2003 + A1 : 2015 *Eurocode 1 — Actions on structures — General actions — Snow loads*
NA + A2 : 18 to BS EN 1991-1-3 : 2003 + A1 : 2015 *UK National Annex to Eurocode 1 : Actions on structures — General actions — Snow loads*
- 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 *UK National Annex to Eurocode 1 : Actions on structures — General actions — Wind actions*
- BS EN 29073-3 : 1992 *Methods of tests for nonwovens — Determination of tensile strength and elongation*
- BS EN ISO 9001 : 2015 *Quality management systems — Requirements*
- BS EN ISO 14001 : 2015 *Environmental management systems — Requirements with guidance for use*
- BS EN ISO 14021 : 2016 + A1 : 2021 *Environmental labels and declarations — Self-declared environmental claims (Type II environmental labelling)*

Conditions of Certificate

Conditions

1 This Certificate:

- relates only to the product that is named and described on the front page
- is issued only to the company, firm, organisation or person named on the front page – no other company, firm, organisation or person may hold or claim that this Certificate has been issued to them
- is valid only within the UK
- has to be read, considered and used as a whole document – it may be misleading and will be incomplete to be selective
- is copyright of the BBA
- is subject to English Law.

2 Publications, documents, specifications, legislation, regulations, standards and the like referenced in this Certificate are those that were current and/or deemed relevant by the BBA at the date of issue or reissue of this Certificate.

3 This Certificate will be displayed on the BBA website, and the Certificate Holder is entitled to use the Certificate and Certificate logo, provided that the product and its manufacture and/or fabrication, including all related and relevant parts and processes thereof:

- are maintained at or above the levels which have been assessed and found to be satisfactory by the BBA
- continue to be checked as and when deemed appropriate by the BBA under arrangements that it will determine
- are reviewed by the BBA as and when it considers appropriate.

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

5 In issuing this Certificate the BBA is not responsible and is excluded from any liability to any company, firm, organisation or person, for any matters arising directly or indirectly from:

- the presence or absence of any patent, intellectual property or similar rights subsisting in the product or any other product
- the right of the Certificate holder to manufacture, supply, install, maintain or market the product
- actual installations of the product, including their nature, design, methods, performance, workmanship and maintenance
- any works and constructions in which the product is installed, including their nature, design, methods, performance, workmanship and maintenance
- any loss or damage, including personal injury, howsoever caused by the product, including its manufacture, supply, installation, use, maintenance and removal
- any claims by the manufacturer relating to UKCA marking and CE marking.

6 Any information relating to the manufacture, supply, installation, use, maintenance and removal of this product which is contained or referred to in this Certificate is the minimum required to be met when the product is manufactured, supplied, installed, used, maintained and removed. It does not purport in any way to restate the requirements of the Health and Safety at Work etc. Act 1974, or of any other statutory, common law or other duty which may exist at the date of issue or reissue of this Certificate; nor is conformity with such information to be taken as satisfying the requirements of the 1974 Act or of any statutory, common law or other duty of care.

British Board of Agrément

1st Floor, Building 3, Hatters Lane
Croxley Park, Watford
Herts WD18 8YG

©2024

tel: 01923 665300
clientservices@bbacerts.co.uk
www.bbacerts.co.uk