Radmat Building Products Ltd
Holland House
Valley Way
Rockingham Road
Market Harborough
Leicestershire LE16 7PS

Tel: +44 (0)1858 410372
e-mail: techenquiries@radmat.com
website: www.radmat.com

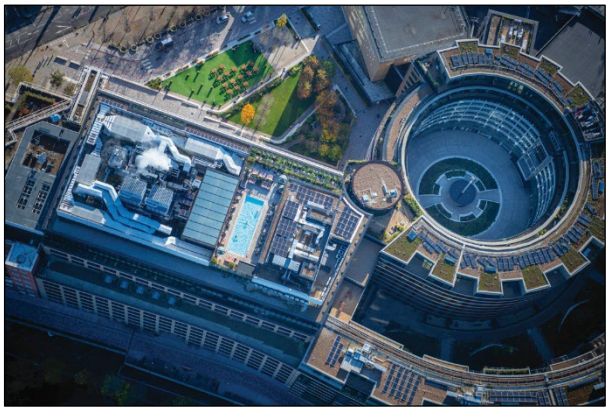
Agrément Certificate
97/3336
Product Sheet 1 Issue 4

PERMAQUIK 6100 MONOLITHIC HOT-MELT MEMBRANE

PERMAQUIK 6100 MONOLITHIC HOT-MELT ROOFING SYSTEM

This Agrément Certificate Product Sheet(1) relates to the PermaQuik 6100 Monolithic Hot-Melt Roofing System, a waterproofing system for use in flat and protected zero fall roofs, inverted roofs, green roofs, blue roofs in combination with a stormwater attenuation system(2) at absolute zero falls, or in other protected roofs, such as covered by pavers, and podium decks.

(1) Hereinafter referred to as 'Certificate'.
(2) The stormwater attenuation system is outside the scope of this 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 Fourth issue: 14 January 2026
Originally certified on 4 March 1997

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

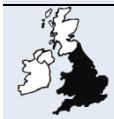
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SUMMARY OF ASSESSMENT AND COMPLIANCE

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 PermaQuik 6100 Monolithic Hot-Melt Roofing 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:		Roofs incorporating 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 satisfies this Regulation. See sections 8 and 9 of this Certificate.
Regulation:	**9**	**Building standards – construction**
Standard:	2.8	Spread from neighbouring buildings
Comment:		Roofs incorporating 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 at least 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:		Roofs incorporating the system, when used with suitable surface protection, may enable a roof to satisfy this Regulation. See section 2 of this Certificate.

Additional Information

NHBC Standards 2026

In the opinion of the BBA, the PermaQuik 6100 Monolithic Hot-Melt Roofing 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 Standard 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.

The opinion of the BBA does not amount to any endorsement or approval by NHBC and does not in any way guarantee that NHBC will approve such product / system as compliant with the NHBC Technical Requirements and Standards.

Fulfilment of Requirements

The BBA has judged the PermaQuik 6100 Monolithic Hot-Melt Roofing System to be satisfactory for use as described in this Certificate. The system has been assessed as a waterproofing system for use in flat and protected zero fall roofs, inverted roofs, green roofs, blue roofs in combination with a stormwater attenuation system(1) at absolute zero falls, or in other protected roofs, such as covered by pavers, and podium decks.

(1) The stormwater attenuation system is outside the scope of this Certificate.

ASSESSMENT

Product description and intended use

The Certificate holder provided the following description for the system under assessment. The PermaQuik 6100 Monolithic Hot-Melt Roofing System consists of:

- PQ 6100 — a hot-melt monolithic membrane consisting of a blend of synthetic rubber and natural rubber in a specially selected compatible bitumen
- PQ 2017 — a 50 $g \cdot m^{-2}$ spunbonded polyester fabric for use as a reinforcement to PermaQuik PQ6100 hot-melt monolithic membrane
- PQ 2060 and PQ 2061 — elastomeric membranes (neoprene compound) for use as a reinforcement to PermaQuik 6100 hot-melt monolithic membrane in localised areas where limited movement occurs.

Ancillary Items

The following ancillary items must be used with the system, and have been assessed with the system:

- Polythene sheet — a 0.01 mm thick for use as a separating layer, only as part of an insulated roof assembly, and subject to light foot traffic only
- ProTherm XPS X MK Water Flow Reducing Layer — a spunbonded polyethylene breathable membrane for use above the insulation in inverted roof specifications

- Radmat BlackOut Surface Conditioner — a rapid drying black bitumen primer for surface conditioning of concrete and brickwork
- Radmat Red Primer — a rapid drying primer made with styrene-butadiene-styrene (SBS) resins and non-flammable solvent
- ProTherm G XPS X 300SL — subject of BBA Certificate 21/5902
- ProTherm XPS X Ultra 300 SL — subject of BBA Certificate 21/5952
- ProTherm Quantum Hybrid —subject of BBA Certificate 20/5769, Product Sheet 2
- ProTherm Quantum Pure — subject of BBA Certificate 20/5769, Product Sheet 1.

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:

- PQ 2250 — a bitumen protection board
- PQ 2450 — a polypropylene protection board
- Radmat Standard Protection Sheet XL — a reinforced SBS modified bitumen-based membrane for use as a secondary access layer
- Radmat 370 Root Barrier P — an atactic polypropylene-modified bitumen (APP)-based waterproofing membrane, with anti-root treatment, for blue/green roofing with non-woven polyester reinforcement.
- Radmat 370 RootSafe Black Mineral — an SBS-modified elastomeric bitumen, with polyester reinforcement waterproofing covering, for garden roof terraces and green roof terraces.
- FOAMGLAS T3/T4+ — a cellular glass insulation slab
- ProTherm RockFace A2 Upstand Board — a stonewool core insulation board
- ProTherm SD Upstand Board – an XPS core insulation board
- D and DM series drainage and reservoir elements
- G series geotextile filter sheets
- GM series green roof growing media
- Pipe Pocket
- PQ-T1520 Double Sided Sealing Tape
- SWG and SWB Blue Roof Geocells.

Applications

The system is intended for use on the following substrates:

- in-situ concrete, precast concrete or concrete blocks
- lightweight structural concrete, subject to the Certificate holder's recommendations
- timber (exterior grade plywood, OSB3, composite timber or sawn timber)
- metal (upstands and flat substrates)
- cement-bonded particle board
- high-strength modified screed
- FOAMGLAS T3/T4+ cellular glass insulation.

The system is intended for use in protected waterproofing layer on zero fall roofs, flat roofs and podiums, as follows:

- inverted roof specifications with limited access
- protected roof specifications using pavers or other suitable protection with limited or pedestrian access
- green roof (extensive) specifications with limited or pedestrian access
- blue roof specifications in combination with a stormwater attenuation system(1) at absolute zero falls.

(1) The stormwater attenuation system is outside the scope of this Certificate.

Definitions for products and applications inspected

The following terms are defined for the purpose of this Certificate as:

- limited access roof — a roof subjected only to pedestrian traffic for maintenance of the roof covering, cleaning of gutters, etc
- zero fall roof — a roof having a finished fall which can vary between 0 and 1:80(1)

- absolute zero fall roof — a roof having finished falls of 0° after accounting for construction tolerances and deflection and with no back falls(2)
- pedestrian access — a roof subjected only to foot traffic and gathering of people greater than required for maintenance
- flat roof — a roof having a minimum finished fall of 1:80(1)
- pitched roof — a roof having a fall in excess of 1:6
- green roof (extensive) — a roof with a shallow layer of growing medium planted with low-maintenance plants such as mosses, sedums, grasses and some wildflower species.
- Invasive plant species - vegetation species having vigorous and / or invasive root systems likely to cause damage to components of the inverted roof insulation system and roof waterproofing.
- blue roof — a flat roof designed to allow controlled attenuation of rain fall during storm events as part of a sustainable drainage system (SUDS) good practice policy.

(1) *NHBC Standards* 2026 require a minimum fall of 1:60 for green roofs
(2) Absolute zero falls are used for blue roofs.

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 When tested to CEN/TS 1187 : 2012, Test 4, and classified to EN 13501-5 : 2016, the constructions given in Table 1 achieved B_{ROOF}(t4) for slopes below 10°.

Table 1 Tested systems

	System 1(1)	System 2(2)	System 3(3)	System 4(4)
Substrate(5)	19 mm plywood			≥ 18 mm plywood
Adhesive(5)	—			Hot bitumen adhesive
Insulation(5)	—			single layer of 50 mm and double layer of 210mm FOAMGLAS T3+
Waterproofing	10 mm PermaQuik PQ 6100			6 mm PermaQuik PQ 6100
Insulation(5)	180 mm ProTherm G XPS, loose laid	160 mm ProTherm G Ultra XPS, loose laid	160 mm ProTherm G Xenergy Ultra XPS, loose laid	—
Water flow reducing layer(5)	0.2 mm ProTherm MinK, loose laid			—
Protection layer(5)	50 mm concrete paving on InStar paving supports	20 mm porcelain tile on an aluminium frame	100 mm of 50/75 mm rounded gravel ballast	4.5 mm EshaFlex 370 FireSafe, torch applied

(1) External fire spread classification report Q100192-1010, issued by BRE Global Ltd, available from the Certificate holder on request.
(2) External fire spread classification report Q100192-1013, issued by BRE Global Ltd, available from the Certificate holder on request.
(3) External fire spread classification report Q100192-1016, issued by BRE Global Ltd, available from the Certificate holder on request.
(4) External fire spread extended application classification report reference 20553E, issued by Warringtonfire, available from the Certificate holder on request.
(5) The component is outside the scope of the Certificate.

2.1.2 On the basis of data assessed, the constructions listed in Table 1 will be unrestricted by the documents supporting the national Building Regulations with respect to proximity to a relevant boundary. Restrictions may apply at junctions with compartment walls.

2.1.3 A roof incorporating the system will be similarly unrestricted by the documents supporting the national Building Regulations with respect to a relevant boundary in the following circumstances:

- when protected by an inorganic covering (eg gravel or paving slabs) listed in the Annex of Commission Decision 2000/553/EC
- irrigated green roofs.

2.1.4 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.

2.1.5 If allowed to dry the plants used may allow the spread of flame across the roof. This must be taken into consideration when selecting suitable plants. Appropriate planting irrigation and/or protection must be applied to ensure the overall fire-rating of the roof is not compromised. Further guidance is available in the Department for Communities and Local Government publications, *Fire Performance of Green Roof and Walls.*

3 Hygiene, health and the environment

Data were assessed for the following characteristics.

3.1 Weathertightness

3.1.1 Results of weathertightness tests are given in Table 2.

Table 2 Weathertightness

System assessed	Assessment method	Requirement	Result
PermaQuik PQ 6100 reinforced with PQ 2017	Watertightness under 60 kPa pressure to MOAT 27 : 5.1.4 : 1983	No leakage	Pass
	Water vapour resistance to BS 3177 : 1959 (23°C / 75% RH)	Value achieved	1206 $MNs \cdot g^{-1}$

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

3.1.3 The adhesion of the system is sufficient to resist the effects of wind suction, elevated temperature and thermal shock conditions likely to occur in practice and remain weathertight.

3.2 Resistance to mechanical damage

3.2.1 Results of resistance to mechanical damage tests are given in Table 3.

Table 3 Resistance to mechanical damage

System assessed	Assessment method	Requirement	Result
PermaQuik PQ 6100 reinforced with PQ 2017 on concrete	Resistance to cracking to Appendix B : Department of Transport Checks and Tests for the Approval of Waterproofing Systems for Concrete Decks to Highway Bridges : Method C(iv) (0°C and 20°C)	No damage at maximum crack width of 2.5 mm	Pass
PermaQuik PQ 6100 reinforced with PQ 2061 on concrete			Pass
PermaQuik PQ 6100 reinforced with PQ 2061	Resistance to static indentation to MOAT 27 : 5.1.9 : 1983 on concrete substrate (23°C)	Value achieved	L_3
	Resistance to dynamic indentation to MOAT 27 : 5.1.10 : 1983 on perlite substrate (23°C)	Value achieved	I_4
PermaQuik PQ 6100 reinforced with PQ 2017 on steel	Resistance to static indentation to EOTA TR-007 : 2004	Value achieved	
	tested at 23°C		L_4
	tested at 60°C		L_4
PermaQuik PQ 6100 reinforced with PQ 2017 protected with representative related protection layer on FOAMGLAS T3+(1)	tested at 23°C		L_3
PermaQuik PQ 6100 reinforced with PQ 2017 on steel	Resistance to dynamic indentation to EOTA TR-006 : 2004 tested at 23°C	Value achieved	I_2
PermaQuik PQ 6100 reinforced with PQ 2017 protected with representative related protection layer on FOAMGLAS T3+(1)	tested at 23°C		I_2
PQ2017 reinforcement scrim	Tensile strength to MOAT 31 : 6C : 1984 Non-directional	Value achieved	38 N·(50 mm)$^{-1}$
PQ2060 reinforcement scrim	Longitudinal direction		289 N·(50 mm)$^{-1}$
	Transverse direction		264 N·(50 mm)$^{-1}$
PQ2061 reinforcement scrim	Longitudinal direction		390 N·(50 mm)$^{-1}$
	Transverse direction		369 N·(50 mm)$^{-1}$
PQ2017 reinforcement scrim	Elongation at break to MOAT 31 : 6C : 1984 Non-directional	Value achieved	33%
PQ2060 reinforcement scrim	Longitudinal direction		463%
	Transverse direction		497%
PQ2061 reinforcement scrim	Longitudinal direction		413%
	Transverse direction		437%

(1) The component is outside the scope of the Certificate.

3.2.2 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 while remaining weathertight.

3.2.3 Where traffic in excess of the examples given in section 3.2.2 is envisaged, such as for maintenance of lift equipment, a walkway must be provided (for example, using concrete slabs supported on bearing pads or the Certificate holder's walkway sheets). Reasonable care must be taken to avoid puncture of the membranes by sharp objects or concentrated loads.

3.2.4 When used over construction joints and minor cracks, the system can accommodate the minor structural movements likely to occur in service.

3.2.5 Once the green roof is installed, it can be regarded as a suitable protection for the system in use.

3.3 Resistance to root penetration

In green roofs using plants with non-invasive roots, the roof waterproofing layer will adequately resist root penetration, subject to routine maintenance being carried out in accordance with this Certificate and as recommended by the Green Roof Organisation (GRO) Code of Best Practice.

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

Not applicable.

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 as given in Table 4.

Table 4 Durability

System assessed	Assessment method	Requirement	Result
PermaQuik PQ 6100 free film	Elastic recovery to MOAT 31 : 6G : 1984		
	Control	≥ 100%	Pass
	Heat aged for 180 days at 70°C	≥ 25%	Pass
PQ 2017 reinforcement scrim	Dimensional stability to MOAT 27 : 5.1.6 : 1983	Value achieved	
	Longitudinal direction		-0.11%
	Transverse direction		-0.59%
PQ 2061 reinforcement scrim	Longitudinal direction		-0.22%
	Transverse direction		-0.08%
PermaQuik PQ 6100 reinforced with PQ 2061 on steel	Resistance to cyclic movement to MOAT 27 : 5.1.8 : 1983 concrete substrate for 500 cycles	No loss of adhesion, no cracking occurring over the test period	Pass

8.3 Service life

8.3.1 Under normal service conditions, the system will have a life in excess of 25 years, provided it is designed, installed and maintained in accordance with this Certificate and the Certificate holder's instructions.

8.3.2 When fully protected and subject to normal service conditions in an inverted roof specification with an open covering (eg aggregate pavers), the system can provide an effective barrier to the transmission of liquid water and water vapour for the design life of the roof in which it is incorporated.

8.3.3 In situations where maintenance or repair of any of the components in the roof structure are necessary (eg protection layer, insulation), the durability of the system may be reduced.

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 assessed in this Certificate.

9.1.2 Decks to which the system is to be applied must comply with the relevant requirements of BS 6229 : 2025, BS 8217 : 2005 and, where appropriate, *NHBC Standards* 2026, Chapter 7.1.

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

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 the principles of 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 growing medium or other bulk material must not be stored on one area of the roof prior to installation, to ensure that localised overloading does not occur.

9.1.7 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.

9.1.8 The ballast requirements for inverted specifications must be calculated by a suitably competent and experienced 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. Alternatively, concrete slabs on suitable supports can be used.

9.1.9 The ballast on protected roofs or growing medium used in green roofs must not be of a type that will be removed, or become localised, owing to wind scour experienced on the roof.

9.1.10 For green roofs, invasive non-native alien plant species as defined by UK Government guidance must not be used.

9.1.11 For green roof finishes, to protect the roof waterproofing, invasive plant species must not be used. In particular, the following species must be excluded:

- invasive weeds including buddleia
- plants and grasses with aggressive rhizomes such as bamboo
- self-setting woody weeds such as sycamore and ash seedlings – must be removed at early germination stage
- other woody plants which spread aggressively including rhododendron.

9.1.12 The Green Roof Organisation (GRO) can provide guidance on species not included in section 9.1.11, but such advice is outside the scope of this Certificate.

9.1.13 The drainage systems for zero-fall roofs, green roofs, or inverted roofs must be correctly designed, and the following points must be addressed:

- provision made for access for maintenance purposes
- for zero-fall roofs, it is particularly important to identify the correct drainage points, to ensure that drainage is sufficient and effective in accordance with the relevant clauses of BS 6229 : 2025
- dead loads for green roofs can increase if the drains become partially or completely blocked causing waterlogging of the drainage layer
- additional guidance for inverted roof specifications is given in BBA Information Bulletin No 4 *Inverted roofs – Drainage and U value corrections.*

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

- as described in the relevant clauses of BS 6229 : 2025, 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 must be carried out in accordance with this Certificate, the Certificate holder's instructions and the relevant clauses of BS 6229 : 2025, BS 8000-0 : 2014, BS 8000-4 : 1989, BS 8217 : 2005 and *Liquid Roofing and Waterproofing Association (LRWA) Note 7 – Specifier Guidance for Flat Roof Falls*. A summary of guidance is provided in Annex A of this Certificate.

9.2.3 Substrates to which the system is to be applied must be sound, clean, dry, free from ice and frost, and free from sharp projections such as nail heads and concrete nibs.

9.2.4 Adhesion checks must be carried out to ensure that the system is compatible with the existing surfaces. The Certificate holder must be consulted for details of suitable test methods and requirements before use.

9.2.5 Prior to the application of the waterproofing membrane, defects in the substrate such as cracks, irregularities and other areas of potential weakness must be repaired using a latex modified 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 The substrate must be conditioned with Radmat Red Primer at a coverage rate between 7 and 11.5 $m^2 \cdot ℓ^{-1}$ or Radmat BlackOut Surface Conditioner at a coverage rate between 5 and 10 $m^2 \cdot ℓ^{-1}$ and allowed to dry before application of the membrane.

9.2.7 The membrane will adhere to concrete, brickwork, blockwork, metal, plywood and timber details. Metal must be free from oil, rust, paint or other coatings liable to affect the bond.

9.2.8 Cakes of membrane must be heated in an insulated and stirred heater fitted with thermometers to measure the melt and oil temperatures. The nominal temperature range for the molten membrane is 190 to 205°C. The temperature of the melt must not exceed 215°C.

9.2.9 The melt is discharged from the heater into a suitable container and applied to the roof using long-handled, rubber-bladed squeegees, or by brush on small areas.

9.2.10 The membrane, when used over construction joints, must be reinforced with PQ 2017 polyester scrim bedded into it. When used over bridging joints, the membrane must be reinforced with PQ 2060 or PQ 2061.

9.2.11 The first coat of membrane must have a minimum thickness of 3 mm.

9.2.12 The PQ 2017 polyester reinforcement layer must be embedded by lightly brushing it into the first layer of the membrane whilst it is still warm and tacky. The reinforcement overlaps must be at least 75 mm.

9.2.13 Detailing must be carried out in accordance with the Certificate holder's instructions.

9.2.14 The system must be immediately protected with the specified protection layer prior to applying ballast, paving slabs or green roof finish, in accordance with the Certificate holder's instructions.

9.2.15 NHBC requires that the system, once installed, is inspected in accordance with *NHBC Standards* 2026, Chapter 7.1, 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 on the basis of the Certificate holder's information and BS 8217 : 2005. To achieve the performance described in this Certificate, installation of the system must be carried out by contractors 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 by the BBA 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 six-monthly inspections and maintenance in accordance with the recommendations in BS 6229 : 2025, Chapter 7, and the Certificate holder's own maintenance requirements. For green roof, and drainage systems, these six-monthly inspections must be carried out by a suitably experienced and competent individual (with horticultural knowledge) to ensure continued satisfactory performance. This must include an examination of the overall condition of the roof, ensure that drain outlets and getters are kept clear and unblocked and, for green roofs, the removal of any self-propagated plants and invasive plant species found. See section 9.1.10.

9.4.2.2 Green roofs must be the subject of regular inspections, particularly in autumn after leaf fall and in spring, to ensure unwanted vegetation and other debris are cleared from the roof and drainage outlets. Guidance is available within the latest edition of the *Green Roof Organisation (GRO) Code of Best Practice.*

9.4.2.3 For green roofs, to protect the waterproofing and any system components above the waterproofing, such as insulation or water-flow-reducing layer, invasive plant species (see clauses 9.1.10 and 9.1.11 of this Certificate) must be eliminated through maintenance.

9.4.2.4 The control and removal of invasive plant species is carried out by hand. Where this is not possible, any chemicals used must be checked for compatibility with the roof waterproofing layer and any system components above the waterproofing, such as insulation or water-flow-reducing layer. The Certificate holder can advise on the suitability of a particular product, but such advice is outside the scope of this Certificate. Note, if using chemicals on a green roof, rainwater outlets may need to be disconnected from the main drainage system to prevent contamination of the local water system and/or harm to flora and fauna.

9.4.2.5 The chemical fertiliser used on green roofs, must be checked for compatibility with the roof waterproofing layer and any system components above the waterproofing, such as insulation or water-flow-reducing layer. The Certificate holder can advise on the suitability of a particular product, but such advice is outside the scope of this Certificate.

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

9.4.2.7 Any damage to the system must be repaired as soon as possible to ensure that the integrity of the waterproofing is maintained. Repairs must be carried out to reinstate the damaged area to the original specification in accordance with the Certificate holder's instructions.

9.4.2.8 Where maintenance or repair of any of the roof components above the waterproofing system are necessary, care must be taken to avoid damage to the system. If damage occurs, it must be repaired as soon as is practicable by the installer.

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 PermaQuik PQ 6100 is delivered to site in 16 kg cakes each wrapped in a meltable polythene film bearing the product's name and the manufacturer's name. Reinforcing materials and protection layers are delivered to site in rolls.

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

11.2.1 Rolls must be stored upright, on a clean and level surface, away from excessive heat and kept under cover, protected from physical damage and contamination.

11.2.2 Reinforcing materials and protection layers 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 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 ISO 9001 : 2015 by BSI (Certificate FM01764).

Additional information on installation

General

A.1 Additional guidance on the design and maintenance for green roofs is available within the latest edition of the *Green Roof Organisation (GRO) Code of Best Practice.*

A.2 Guidance for the design and construction of blue roofs is available in the *NFRC Technical Guidance Note for the construction and design of Blue Roofs.*

A.3 Guidance on the design of flat and zero fall roofs and the installation of hot melt systems is given in the Liquid Roof and Waterproofing Association (LRWA) Note 7 – *Specifier Guidance for Flat Roofs.*

A.4 Additional guidance for inverted roof specifications is given in BBA Information Bulletin No 4 *Inverted roofs – Drainage and U value corrections.*

Bibliography

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

BS 6229 : 2025 *Flat roofs with continuously supported flexible waterproof coverings — 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 8217 : 2005 *Reinforced bitumen membranes for roofing — Code of practice*

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 + A1 : 2010 UK National Annex to *Eurocode 1 — Actions on structures — General actions — Wind actions*

CEN/TS 1187 : 2012 *Test methods for external fire exposure to roofs*

EN 13501-5 : 2016 *Fire classification of construction products and building elements — Classification using data from external fire exposure to roof tests*

EOTA TR-006 : 2004 *Determination of the resistance to dynamic indentation*

EOTA TR-007 : 2004 *Determination of the resistance to static indentation*

ISO 9001 : 2015 *Quality management systems — Requirements*

MOAT 27 : 1983 *General directive for the assessment of roof waterproofing systems*

MOAT 31 : 1984 *Special directives for the assessment of reinforced homogeneous waterproof coverings of styrene-butadiene-styrene (SBS) elastomer bitumen*

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
- 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
- and any matter arising out of or in connection with it or its subject matter (including non-contractual disputes or claims) is governed by and construed in accordance with the law of England and Wales.
- the courts of England and Wales shall have exclusive jurisdiction to settle any matter arising out of or in connection with this Certificate or its subject matter (including non-contractual disputes or claims).

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