

PermaTEC Hot Melt Systems

Monolithic, Hot Applied Waterproofing Systems

Description

PermaTEC Hot Melt Monolithic Waterproofing Systems comprise of PermaTEC EcoWRAP or PermaTEC Anti-Root hot melt waterproofing compounds, specially formulated combinations of refined bitumen, synthetic rubbers, fillers and other additives, which are hot-applied in conjunction with carefully selected reinforcement/detailing fabrics and protection layers to give the ultimate waterproofing performance.

NB: PermaTEC Anti-Root is specifically designed for use in Extensive & Intensive Green Roof and Biodiverse Roof systems.

Installed by a nationwide network of registered installers, PermaTEC provides a tough, flexible, self-sealing waterproof membrane for use on inverted, green, flat, including completely flat, protected roofs. PermaTEC is also suitable for use as a damp-proof membrane in solid concrete floors or as the waterproofing layer in a typical sandwich membrane used for above or below ground waterproofing in concrete, brick or blockwork structures.

Features and Benefits

- Hot applied system
- Suitable for completely flat (zero falls) decks.
- BBA Certified No. 03/4009 (including PermaTEC Anti-Root)
- Outstanding durability – lasts the life of the building
- Nominal membrane thickness of 6mm
- Tough and resistant to impact damage.
- Excellent low temperature flexibility –25°C
- High bond strength to substrate - High tensile strength.
- Seamless application
- Rapid setting – resistant to rain, snow and frost immediately after application.
- Integral root protection. No need for separate anti root barriers. (PermaTEC Anti Root)
- Virtually no packaging to be disposed of (zero wrapper waste).

Product Information

PermaTEC Ecowrap Hot Melt Compound

A hot applied specially formulated combination of refined bitumen, synthetic rubbers, fillers and other additives.

Unit Size	12kg dispersible film covered blocks
Approximate Coverage (2 layer 6mm application)	7 kg/m ²
Nominal Laid Thickness	6mm
Softening Point	100 - 110°C
Pen @25°C (0.1mm)	80 - 100
Low Temp Flex (BS EN ISO 1109:2000)	-25°C (pass)



PermaTEC Anti-Root Hot Melt Compound

A hot applied specially formulated combination of refined bitumen, synthetic rubbers, fillers, other additives and anti-root chemicals. Used for green roof installations.

Unit Size	12kg dispersible film covered blocks
Approximate Coverage (2 layer 6mm application)	7 kg/m ²
Nominal Laid Thickness	6mm
Softening Point	100 - 110°C
Pen @25°C (0.1mm)	80 - 100
Low Temp Flex (BS EN ISO 1109:2000)	-25°C (pass)
Wrapper marking	PermaTEC Anti-Root



System Components

PermaTEC High Penetration Primer

A brush or roller applied bituminous priming solution for the preparation of cementitious surfaces to receive PermaTEC monolithic membrane.

Drum size	25 litre
Coverage (concrete)	6-8m ² / litre

PermaFLASH-R

A polyester reinforcement layer, installed between the two applications of PermaTEC EcoWrap or PermaTEC Anti- Root

Roll Length	200m
Roll Width	1m
Weight m ²	60g

PermaGUARD-F

A sand surfaced 180g/m² polyester based bitumen membrane, installed as a protection layer in standard PermaTEC and PermaTEC Anti Root systems.

Roll Length	20m
Roll Width	1m
Weight m ²	2.1kg

PermaGUARD-M

A slate surfaced high performance torch applied bitumen membrane consisting of a 180 g/m² polyester base coated with SBS modified bitumen. It has a slate finish on the top surface and thermofusible film on the underside. It is installed as a protection layer to PermaTEC on exposed upstand details.

Roll Length	8m
Roll Width	1m
Weight m ²	4kg

PermaFLASH-D150

A flexible bitumen EPDM polymer detailing sheet which is installed as a reinforcement layer over cracks, construction joints, changes in materials and where minor movement may occur.

Roll Length	20m
Roll Width	150mm
Thickness	1.25mm
Weight m ²	1.6kg

PermaFLASH-D500

A flexible bitumen EPDM polymer detailing sheet which is installed as a reinforcement layer around rainwater outlets.

Roll Length	20m
Roll Width	500mm
Thickness	1.25mm
Weight m2	1.6kg

Permatorch Anti-Root Barrier (Alternative to PermaTEC Anti-Root compound)

A high performance cap sheet consisting of a 180 g/m² polyester base coated with polymer modified bitumen, containing a specially formulated root resistant treatment, for use as the final layer in a roof garden waterproofing specification. It has a slate finish on the upper surface, and a thermofusible film on the underside.

Roll Length	7.5m
Roll Width	1m
Weight m2	5.73kg

Preparation and Application

The Preparation and Application of PermaTEC Hot Melt Monolithic Systems must be carried out strictly in accordance with IKO's installation instructions.

Substrates to receive PermaTEC must be clean, dry and frost-free. Cementitious substrates must be lightly primed with PermaTEC High Penetration Primer, typically at the rate of 6-8m²/litre and allowed to dry. **NB: PermaTEC Ecowrap or PermaTEC Anti-Root compound must not be applied to wet primer.** Timber, Metal and Calcium Silicate surfaces do not need to be primed.

Cracks over 3mm, construction joints and at all changes in substrate materials should be covered with PermaFLASH-D150 bonded in hot PermaTEC Ecowrap or PermaTEC Anti-Root. PermaFLASH-D500 should be bonded around rainwater outlets. A proprietary expansion joint system should be utilised over all gaps above 12mm wide.

The film covered PermaTEC EcoWrap or PermaTEC Anti-Root blocks are added straight into a melter with mechanical agitation specifically designed for the preparation of hot-applied rubberised bitumen materials. Consult the melter manufacturer for specific instructions covering the proper operating procedures, safety and maintenance. The PermaTEC Ecowrap or PermaTEC Anti-Root compound should be heated to its recommended application temperature of 150°C-170°C. Care should be taken not to exceed 200°C.

Detailing

IKO have developed a number of standard details for installing PermaTEC Ecowrap and PermaTEC Anti-Root. Please consult IKO. Where possible, detailing work should always be carried out first. In accordance with good roofing practice, upstands should extend at least 150mm up above the finished roof level.

PermaTEC Application Technique

Using a suitable spreader or squeegee, the first coat of hot PermaTEC compound is applied to the prepared substrate at a nominal coat thickness of 3mm. The PermaFLASH-R polyester reinforcement is brushed into the PermaTEC compound whilst it is still hot. All laps in the PermaFLASH-R should be at least 75mm wide and fully sealed with the PermaTEC compound. The second coat is applied in the same manner ensuring complete coverage of PermaFLASH-R at the nominal coating thickness of 3mm. The second coat of PermaTEC must be protected.

Protection

PermaGUARD-F sand surfaced bitumen membrane is the standard protection layer. It is applied directly to the second coat of PermaTEC whilst it is still hot and tacky. It is used on the main horizontal area which is to be subsequently covered with a range of surface finishes such as inverted roofing or pedestrian paving. It is also used on unexposed detail items. The PermaGUARD-F protection layer should be brushed into the hot PermaTEC as quickly as possible ensuring no air pockets. Laps in PermaGUARD-F to be a minimum of 75mm and sealed using hot PermaTEC.

PermaGUARD-M slate surfaced bitumen membrane is used on exposed upstand details. It is applied to the second coat of PermaTEC by controlled torch application ensuring no air pockets. Laps in PermaGUARD-M to be minimum 75mm and a neat bead of bitumen must be extracted from all lap joints.

NB: Permatorch Anti-Root felt can still be used for a protection layer in Green Roof systems, but the PermaTEC Anti-Root compound system is usually a more commercially viable option. Permatorch Anti-Root felt is applied to the second coat of PermaTEC Ecowrap whilst it is still hot or by controlled torch application, ensuring no air pockets. Laps in Permatorch Anti-Root to be minimum 75mm side and minimum 100mm end laps and fully sealed by torch application. A neat bead of bitumen must be extracted from all lap joints.

Surface Finishes

A range of surface finishes including inverted roofs (concrete paving and stone ballast); green roofs (extensive, intensive and biodiversity), podium (hard landscape) and structural (below ground) situations can use the PermaTEC waterproofing system, specifications upon request.

Other products

Full product literature, health & safety and technical sheets are available as downloads from our website www.ikogroup.co.uk or on request by email: marketing@ikogroup.co.uk

IKO PLC

Literature Enquiries

E-Mail: marketing@ikogroup.co.uk Website: www.ikogroup.co.uk

Sales Support

Appley Lane North, Appley Bridge, Wigan, Lancashire WN6 9AB
Tel: 0844 873 1062 Fax: 0844 873 1067 E-Mail: sales@ikogroup.co.uk

Technical & Design Services

Appley Lane North, Appley Bridge, Wigan, Lancashire WN6 9AB
Tel: 0844 412 7207 Fax: 0844 412 7208 E-Mail: technical@ikogroup.co.uk



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