

PERMAPHALT POLYMER MODIFIED ASPHALT FOR CONCRETE, METAL DECK, TIMBER AND WOODWOOL SLAB ROOFS

USE OF FOAMGLAS®

The physical properties of FOAMGLAS® ensure that its insulation value does not deteriorate with age making it the most cost-effective insulant. It is a proven system when combined with Permaphalt polymer modified asphalt as the weatherproofing membrane. FOAMGLAS® can be installed without the need for a vapour barrier and is impermeable to water and water-vapour, non-combustible and with a high compressive strength making it an ideal base for Permaphalt for general and special roof applications and where pedestrian traffic is anticipated. The FOAMGLAS®/Permaphalt system provides a long-term solution to flat roofs and an economical and cost-effective system with a high ecological profile. FOAMGLAS® is totally free from HCFC, HFA and pentane.

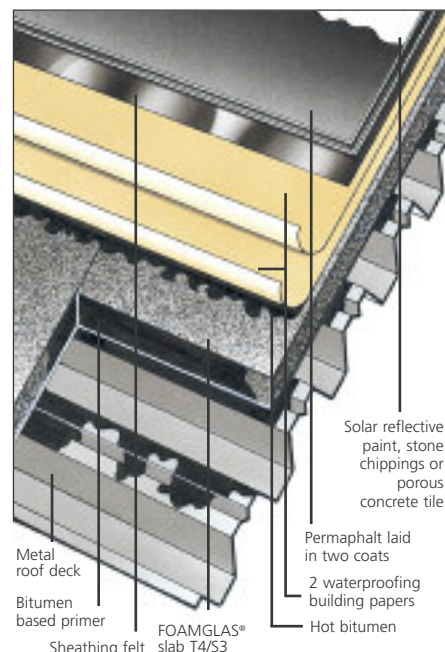
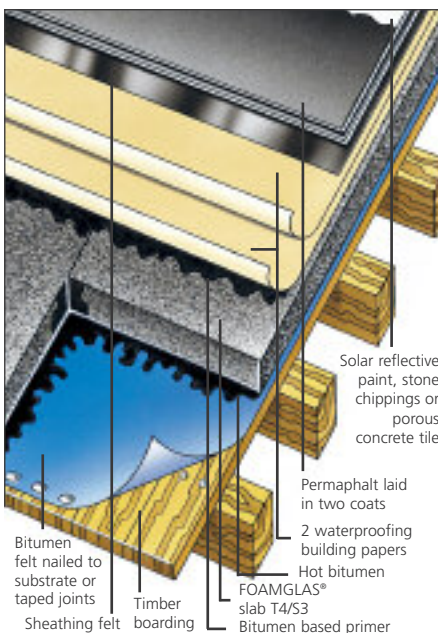
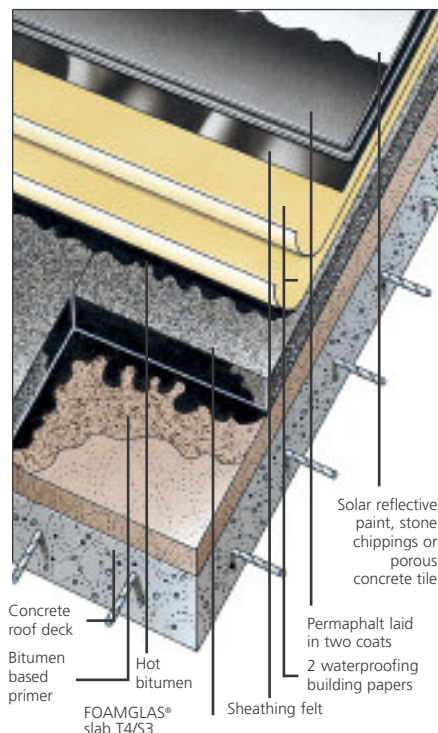
APPLICATIONS

Concrete Roof Deck

Suitable for use with both reinforced concrete slab and pre-cast concrete units for roofs and balconies where pedestrian access or limited access is required for foot traffic. Totally impermeable to moisture, FOAMGLAS® eliminates the need for a vapour barrier and provides a secondary waterproof layer beneath the asphalt waterproof layers. Its coefficient of linear expansion is similar to that of concrete and therefore normal thermal movement results in lower stresses to the roof finishes. In the event of fire, internal and external damage will be minimised as FOAMGLAS® is non-combustible and cannot contribute to fire nor give off toxic fumes or smoke. For roof balconies or trafficked areas, a porous concrete tile is adhered over the asphalt finish.

Metal Roof Deck

Suitable for limited access roofs subject to normal maintenance and foot traffic. FOAMGLAS® high compressive strength and dimensional stability will, when used with profiled metal roof decking, considerably stiffen the roof system and reduce the deflection, giving less stresses to the asphalt waterproofing layers. Its application by hot bitumen bonding provides excellent resistance to wind-uplift without the need for mechanical fasteners, thus reducing the risk of corrosion and improving the aesthetic appearance inside the building. In the event of fire, internal and external damage will be minimised as FOAMGLAS® is non-combustible and cannot contribute to fire nor give off toxic fumes or smoke.



Timber Roof

The sub-structure can be timber board, plywood or woodwool slab. The prime requirement of insulation with timber decks is its non-combustibility. FOAMGLAS® is non-combustible and cannot contribute to fire nor give off toxic fumes or smoke. FOAMGLAS® is applied in hot bitumen onto a layer of nailed roofing felt or with taped joints of the section of timber or plywood deck. Its imperviousness to water and water-vapour eliminates damage to the timber as interstitial condensation cannot occur.

FOAMGLAS®

Building

BUILDING REGULATIONS, Part L & J

All FOAMGLAS® systems meet the requirements of Building Regulations, with regard to air tightness of the building, the avoidance of cold bridging and sustainable construction. FOAMGLAS® systems will continue to fully perform for the lifetime of the building.

FOAMGLAS® FOR ROOFS

INSTALLATION

The FOAMGLAS® slab is installed on the primed concrete, metal or timber deck using hot bitumen which fully bonds the slab to the substrate and seals the joints. The first layer of non-bituminous waterproof building paper is adhered to the top surface of the FOAMGLAS® with hot bitumen; the second layer of paper is loose laid over the first. A black sheathing felt separating layer is loose laid with 50mm laps. The Permaphalt polymer modified asphalt is normally applied in two coats, breaking joint to a total thickness of 20mm onto the underlay. Permaphalt is installed in accordance with CP144 Part 4 BS8000 Part 4, and to the manufacturer's (Permanite Asphalt) written specifications and recommendations.



Table shows thickness of FOAMGLAS® T4 and T4 tapered to achieve overall U-values.

Structure	0.35 W/m ² K	0.30 W/m ² K	0.25 W/m ² K	0.20 W/m ² K	0.16 W/m ² K
T & G timber or plywood	110	130	160	200	250
As above with plasterboard ceiling	100	120	150	190	240
Woodwool slab	90	110	140	180	230
As above with plasterboard ceiling	80	100	130	170	220
150mm cellular concrete with minimum 50mm screed	110	130	160	200	250
As above with suspended plasterboard ceiling	100	120	150	190	240
Metal deck	120	140	160	200	250
As above with suspended plasterboard ceiling	110	120	150	190	240

The U-values have been calculated using the combined method to BS EN ISO 6946:1997 (Building components and building elements - thermal resistance and thermal transmittance - Calculation method).

FOAMGLAS® T4 has a compressive strength of 700 kN per m². For trafficked areas, or when higher compressive strength is required,

FOAMGLAS® S3 can be utilised which has a compressive strength of 900 kN per m²; please consult the manufacturer for required thicknesses.

FOAMGLAS®
Building

Pittsburgh Corning (UK) Limited
63 Milford Road, Reading
Berkshire RG1 8LG
Tel: 0118 950 0655 Fax: 0118 950 9019
email: info@foamglas.co.uk
www.foamglas.co.uk

Pittsburgh Corning (UK) Limited assumes no responsibility for errors in, or misinterpretation of the information contained in this leaflet or in its use. Pittsburgh Corning (UK) Limited also retains the right to amend technical specifications without prior notice.

pc **PITTSBURGH CORNING**

FOAMGLAS® and PC are registered trademarks in the USA and other countries. We reserve the rights of reproduction or translation, in whole or part, in all countries including the CIS.