FOAMGLAS® Compact Roof Systems

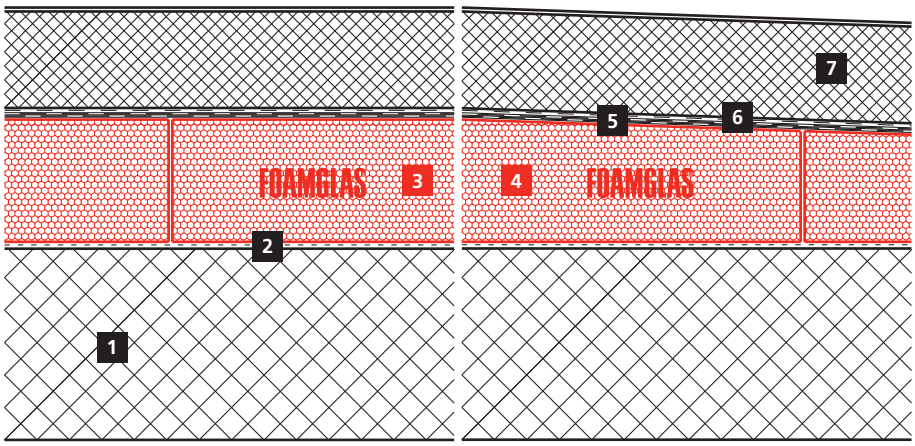
Roof Top Car Deck on in-situ concrete slab

FOAMGLAS® slabs with hot bitumen

FOAMGLAS® Building

Schematic drawing

System 4.5.1



1 Concrete roof deck
2 Primer coat
3 FOAMGLAS® slabs or
4 FOAMGLAS® TAPERED slabs, laid in hot bitumen
5 Two layers of bituminous waterproofing membranes
6 Separating or slip layer
7 In-situ concrete slab

FOAMGLAS® product properties

Waterproof – Resistant to vermin – High compressive strength – Non-combustible – Impervious to water vapour – Dimensionally stable – Acid resistant – Easily cut to shape – Ecological

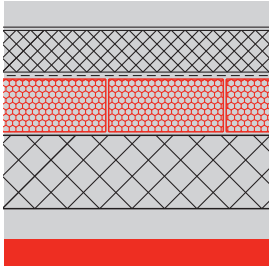
Advantages of the FOAMGLAS® system

- **Quality:** Systems with high quality materials. Quality management by systematic site inspections and professional consulting.
- **Cost efficiency:** The high durability preserves maximum value and guarantees minimal maintenance costs.
- **Sustainability:** Optimum insulation and protection against moisture for generations.
- **Safety:** Compact, fully bonded insulation system preventing large-scale damages and renovations in the event of a leak caused by a puncture of the roofing membrane.
- **Functionality:** Insulation and vapour barrier in one single functional layer. Flexible and easy installation of a gradient through prefabricated tapered slabs. Thin load distribution layers owing to the high compressive strength of the insulation, free of deformation.

Recommendations for architects

- Normally used: FOAMGLAS® slabs S3/F or FOAMGLAS® TAPERED slabs S3/F, size 450/600 mm.
- Insulation thickness to meet building regulations or project-specific U-value requirements. Please also consult our product overview. It contains information on all our products, their field of application and their specific properties.
- For the use of FOAMGLAS® under load bearing conditions, the project/structural engineer must check the admissible loads.
- **The flatness and the general conditions of the substrate are important criteria when using FOAMGLAS® (see TG1). Please contact our Technical Department to verify the criteria for the substrate.**
- **For technically correct implementation, relevant standards and guidelines must be observed.**

Solutions for technical details and specification clauses on request. Further proposals and solutions are available any time from our technical consultants. **Updated: November 2010.** We explicitly reserve the right to change the technical specifications. The current values can be found on our website under: **www.foamglas.co.uk/building/applications**



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Roof Top Car Deck on in-situ concrete slab

FOAMGLAS® slabs with hot bitumen

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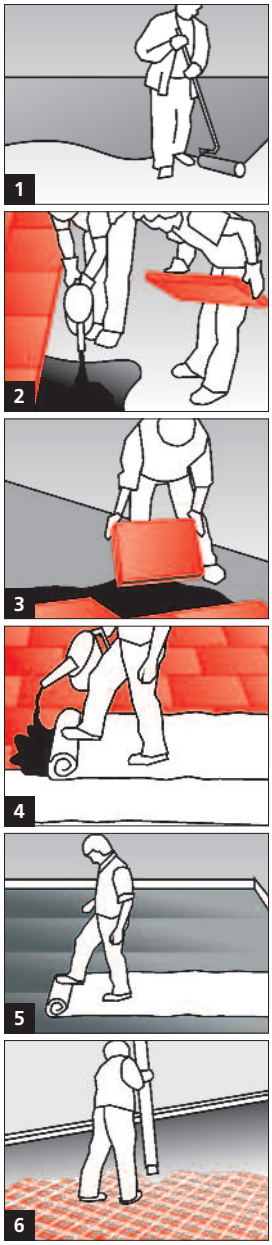
System 4.5.1

Installation instructions

- Apply bituminous primer with roller (or spraying equipment) on the clean and dry concrete surface, coverage ~ 0.3 l/m². (1)
- Apply the FOAMGLAS® slabs fully bonded to the substrate with hot bitumen poured from a bitumen can, with staggered and bitumen-filled butted joints. Coverage ~ 5.0 – 7.0 kg/m², dependent on the thickness of the insulation:
  Dip a short as well as a long side of the slab in the poured bitumen and press into position against already laid slabs. Surplus bitumen spilt at the side must be removed with the next slab in order to avoid irregularities. (2 / 3)
- Possible waterproofing variation: Apply two layers of bituminous waterproofing membranes covering the entire surface. The first layer is applied using the pour and roll technique, the second is torched on. Joints overlapping at least 100 mm, with staggered courses. (Further installation and waterproofing proposals with bituminous membranes or, for example, also with a combination of bituminous and synthetic membranes are available on request). (4)
- Apply the separating / slip layer with overlapping joints. (5)
- To protect against high mechanical load or heavy site traffic, apply a protective layer of lean concrete mix, thickness ~ 50 mm.
- Cast in-situ the reinforced concrete slab. Dimensioning, proportions of sections as well as quality of joints according to the recommendations of the specialist engineer. (6)

Recommendations for the contractor

- The build up and tolerences of the substrate have to be in accordance with relevant standards and guidelines.
- Substrate and ambient temperature should not be below + 5° C.
- A layer of waterproofing membrane must be applied immediately after the insulation has been installed. At the end of each day or every work interruption, all remaining naked surfaces as well as the front sides must be covered with a top coat.
- Protective layers should be applied immediately after the application of the second waterproofing layer.
- Adequate measures should be taken in order to avoid any risks of damage by other contractors during construction.
- Protect sensitive components provided by other suppliers against blobs of hot bitumen and the effect of heat
- **Please contact our technical consultants; they can help you by providing support or on-site assistance free of charge.**



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