

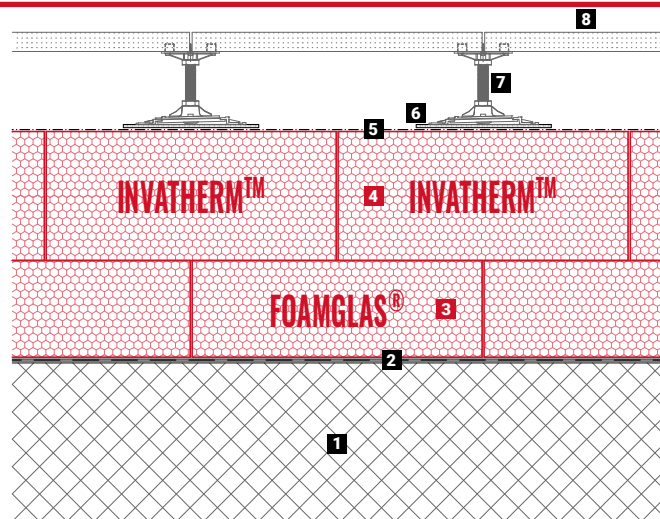
## Inverted Roof with Non-Combustible Insulation on a Continuous Support

FOAMGLAS® INVATHERM™ Loose Laid (double layer system)



Schematic drawing

System 4.8.4



1. Concrete roof deck in compliance with BS 6229
2. Waterproofing membrane
3. FOAMGLAS® T3+ Slab
4. FOAMGLAS® INVATHERM™
5. Water flow reducing layer (WFRL)
6. Load spreading plates or protective pads
7. Support pads
8. Paving

### FOAMGLAS® product properties

Non-combustible – Non-toxic – Euroclass A1 – Waterproof – Resistant to vermin – High compressive strength – Impervious to water vapour – Dimensionally stable – 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 provides time-tested performance and minimal maintenance costs.
- **Sustainability** : Optimum insulation and protection against moisture.
- **Safety** : Cellular glass FOAMGLAS® INVATHERM™ contains no toxic substances and, in case of fire, does not develop fumes or toxic gases, nor does it contribute to the spread of fire.
- **Functionality** : Easy and efficient installation.

### Recommendations for architect

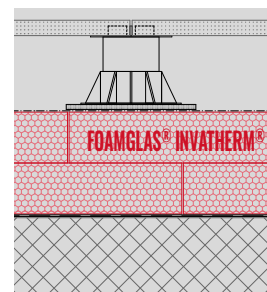
**Base layer:** FOAMGLAS® T3+ Slabs (60 x 45 cm)

**Top layer:** FOAMGLAS® INVATHERM™ (60 x 45 cm)

- FOAMGLAS® INVATHERM™ is a non-combustible, non-toxic, Euroclass A1 insulation material.
- This inverted roof system can only be used on buildings where the internal temperature is always 8°C or more.
- This inverted roof system can also be used for zero fall roofs in compliance with BS 6229 with limited access, balconies and terraced roofs subject to pedestrian access only.
- All layers of the build-up have to be in accordance with the local regulations.
- Insulation thickness is to meet building regulations or the project specific U-value requirements
- For further information regarding FOAMGLAS® products or any specific properties, please consult our PDS.
- FOAMGLAS® INVATHERM™ slabs should not be trimmed down on site to less than 150 x 150 mm.
- The tolerance and general conditions of the substrate are important criteria when using FOAMGLAS® INVATHERM™ (refer to document TG05 for further information). FOAMGLAS® Technical Department can be consulted for further guidance.
- For technically correct installation, relevant standards and guidelines must be observed.
- Negative back falls, which can lead to ponding, are not acceptable and should be corrected in compliance with BS 6229.

Solutions for technical details and specification clauses on request. Further proposals and solutions are available any time from our technical consultants. Updated: 15/05/2024.

We explicitly reserve the right to change the technical specifications. The current values can be found on our website under: [www.foamglas.com/en-gb](http://www.foamglas.com/en-gb)



## Inverted Roof with Non-Combustible Insulation on a Continuous Support

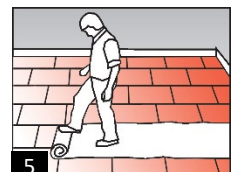
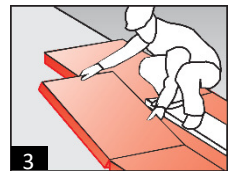
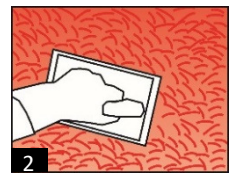
FOAMGLAS® INVATHERM™ Loose Laid (double layer system)



### System 4.8.4

#### Installation instructions

- The waterproofing membrane has to be installed on the substrate in accordance with the manufacturer's recommendations. [1]
- 1. Installation instructions for FOAMGLAS® Slabs - Base Layer:
  - FOAMGLAS® Slabs must be entirely supported on the substrate. If this is not the case, the bottom side of the slab has to be trimmed and shaped, such that the FOAMGLAS® rests flat on the substrate. This must always be done when the membrane is installed with overlaps. [2]
  - When laying the insulation any gaps between FOAMGLAS® Slabs must be avoided. Apply FOAMGLAS® Slabs with staggered and tight-butted joints as shown in the TG05 Technical Guidelines. [3]
- 2. Installation instructions for FOAMGLAS® INVATHERM™ - Top Layer:
  - Inspect the Base Layer to ensure the top surface of the Slabs is level and true. The FOAMGLAS® INVATHERM™ must be continuously supported by the base layer of FOAMGLAS® Slabs. If necessary, the slab top surface must be smoothed off, prior to the installation of the FOAMGLAS® INVATHERM™. [4] For further information consult the TG05 Technical Guidelines.
  - All joints between the FOAMGLAS® INVATHERM™ slabs must be tight and avoid gaps.
  - Install FOAMGLAS® INVATHERM™ with staggered and tight-butted joints, following the TG05 Technical Guidelines. The referenced document provides full information for the handling of the FOAMGLAS® INVATHERM™, including measuring and cutting the insulation, avoiding open joints or gaps; and optimising the layout to avoid cutting to less than 15 cm width. [3]
  - Lay the Water Flow Reducing Layer over the FOAMGLAS® INVATHERM™, in accordance with the manufacturer's instructions (loosely laid). [5]
  - Apply load support bases, in accordance with the manufacturer's instructions.
  - Apply the support system, in accordance with the manufacturer's instructions.
  - Apply the walking surface layer of paving or tiles.
  - To achieve the U-value performance, the Water Flow Reducing Layer must be specified and installed following the manufacturer's instructions and any relevant local regulation.



#### Recommendations for the contractor

- The build up and tolerances of the substrate have to be in accordance with relevant standards and guidelines.
- FOAMGLAS® INVATHERM™ is a non-combustible, non-toxic, Euroclass A1 insulation material.
- Safety Data Sheets (SDS) and labels must be read before starting the works on site. The Contractor shall be responsible for all necessary health and safety precautions.
- The system build-up and tolerances of the substrate have to be in accordance with relevant standards and guidelines for the FOAMGLAS® INVATHERM™.
- The flatness and the general conditions of the substrate are important criteria when using FOAMGLAS® INVATHERM™ (refer document TG05 document for further information).
- Site conditions shall be considered, including suitability of ambient and surface temperatures, as per manufacturer's instructions.
- FOAMGLAS® INVATHERM™ should not be trimmed to less than 15 cm width to ensure a robust installation.
- Staggered joints need to be placed with a minimum of 15 cm from each other to ensure a good performance. The drainage layer and ballast should be installed immediately, upon installation of FOAMGLAS® INVATHERM™, to prevent accidental damage to the material.
- Adequate measures shall be taken in order to avoid any risks of damage to the materials during construction. Point loads need to be avoided on the top surface of the FOAMGLAS® INVATHERM™, make sure to take adequate measures when walking and working on the surface.
- Minor damages on the FOAMGLAS® INVATHERM™ can be repaired with our PC® SKYFIX A2.
- Mayor damages to the FOAMGLAS® INVATHERM™ must be replaced. Technical Support and on-site assistance can be provided upon request.

#### Building internal temperature

The FOAMGLAS® INVATHERM™ inverted roof insulation system is designed for use upon buildings with an internal temperature of minimum 8°C.

The technical guidelines for the application and the installation of FOAMGLAS® are based on historical experience and general site practice. They do not reflect individual examples. We therefore assume no liability as to the completeness and the suitability for a specific project. Furthermore, our liability and responsibility are subject to our general conditions of sale which are not extended either by this technical data sheet nor by the consulting of our technical sales representatives.

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