

Foamit Foamed Glass – Overview Information Sheet

Foamit foam glass is an environmentally-friendly insulating product and low-capillarity lightweight-fill, which is manufactured from cleaned recycled glass. It is ideal as an insulating lightweight aggregate material for specialist road construction and infrastructure projects as well as providing insulation in a wide range of buildings, foundations, limecrete floors and roofs (green-roofs, rooftop parking, rooftop terraces etc.).

Foam Glass

Foam glass is a lightweight aggregate made from purified recycled glass. Foam glass has been used in Europe and Scandinavia for a long time and its positive benefits are widely known; it is environmentally friendly, non-flammable, lightweight and easy to work with. Uusioaines Ltd started to manufacture foam glass in 2011. The factory is located in Forssa in Uusioaines Ltd's centre of operations and in the vicinity of their glass treatment plant. The production capacity is about 150 000 cubic metres per year.

Products

Foamit foam glass aggregates are ideally suited for applications in building various structures. Foamit as a bulk filler material is one of the lightest on the market. Benefits of this low density include the ease of compaction of the material and transport efficiency. Foam glass's cell structure gives the product uniquely low thermal conductivity (dry about 0.1 W / mK) , making it an excellent insulator. Foamit's easy compaction and angle of friction ensure a stable substructure on site. Foamit is non-combustible and has low capillarity, meaning it can be effective as a moisture- barrier. Foamit is made up of 99% purified recycled glass. Thanks to the nature of the manufacturing process of Foamit foam glass, there is no organic matter contained in the finished products.

PRODUCT	APPLICATION	Bulk density [+/- 15%]	Thermal conductivity dry λ [W / mK]
Foamit 60 (0-60mm)	Parking and yard substructures, pipelines, drainage and frost insulation material. Construction of roads instead of commonly used crushed stone.	210 kg / m ³	0.1
Foamit 30 (20-30mm)	Sub-base esp. in limecrete floors, in basement and crawl spaces, foundation cuts and general thermal insulation.	210 kg / m ³	0.1

Foamit 20 (10-20mm)	In upper and intermediate floors as well as in roof structures. Fill material for graded and sloping floors. Pipe trench prep. work. Landscaped roofing, green roofs and roof terraces.	190 kg / m ³	0.1
Foamit 10 (3-10 mm)	More intricate structures as fill material and for graded sloping floors. Various garden applications (compost / soil aeration). Landscaped roofing, green roofs and roof terraces.	180 kg / m ³	-
Foamit 60 Light (0-60 mm)	Backfill, retaining walls and pipelines - and drainage and general frost insulation material.	180 kg / m ³	0.1

Compaction factor is 10-25% of stored weight and compaction equipment, depending on the application, is required. For housebuilding construction a compacting plate (70-200kg) is recommended

Environment

Foamit foam glass's raw material is recycled glass, which is cleaned and milled before being heated in the furnace. Due to the manufacturing technique, it does not contain organic substances and is non-flammable. It is odourless, inert and does not leach harmful substances in conventional applications. Using recycled glass as a raw material saves virgin natural resources and reduces the carbon footprint. Foamit is reusable and can be upcycled. The risk assessment in our Finnish report shows that the use of Foamit for fill material and / or frost insulation of road, street and field structures will not cause significant groundwater pollution