



Foam glass aggregate

for residential & commercial construction



20
4–20 mm

30
20–30 mm

Foamit 20 and Foamit 30 are environmentally friendly foam glass aggregates made of recycled glass and used in residential and commercial construction.

The grey-coloured aggregate is light, porous and has an angular shape. In building construction, particle sizes of 4–20 mm (Foamit 20) or 20–30 mm (Foamit 30) are usually used. The product is also available in a larger particle size (Foamit 60, 0–60 mm).

Production method

The cleaned glass cullet is milled into a powder of less than 0.1 mm and a foaming agent is added. The glass powder mixture swells fivefold in a 900-degree furnace. Hardened foam glass consists of about 92% air pores. After cooling, the foam glass sheet breaks into pieces and ready-to-use aggregate, prior to further crushing.

Environment

Foamit is made from 100% recycled materials. About 99% of the product consists of recycled glass and about 1% of foaming agent from an industrial byproduct. Foamit does not require a separate environmental permit even in groundwater areas. When dismantling structures, Foamit can be reused. Foamit has a low, verified carbon footprint. Foamit has been approved for the Nordic Ecolabel product database and can be used in houses with Nordic Swan certification.

Foamit Group's operations are based on ISO 9001, ISO 14001 and ISO 45001 certified quality, environmental, and occupational health and safety standards. Foamit Group is committed to sustainable business and reports on the sustainability of operations annually.

Storage

Outdoor fill products are stored at the factory in outdoor storage bays and may not be used for internal fill in buildings. Indoor fill products are always stored in dry warehouses at the factory. If the product gets wet during installation, it must be ensured that any excess moisture can escape from the build.

- Lightweight and interlocking
- High load capacity when compacted
- Withstands foot traffic even without compaction
- Good thermal insulator
- High freeze-melt resistance
- Good drainability
- No leaching of harmful substances
- No organic matter or sulfur
- Non-combustible (A1)
- Safe for indoor airspaces (M1)
- 100% recycled material
- Verified carbon footprint

Advantages in building construction

Foamit's high friction angle makes it possible to operate on top of the foam glass layer during installation, as well as to build up steeply inclined layers of fill quickly. For interior fills, Foamit increases the longevity and safety of the build, since the product is non-combustible, sulfur-free and does not contain organic substances. Due to its low weight, good thermal insulation properties, and high freeze-melt resistance, Foamit is suitable for use as lightweight outdoor fill and for frost protection. The time and labour costs for a build-up with Foamit are lower than with many other methods. Foamit does not require time for settlement. Specialist equipment is not required for its installation.

Uses

Applications include in building foundations, in internal fills, for thermal insulation of upper floors (Foamit 20), in falls for roofs, frost protection, for light fill under garden decking and as backfill.

- Subfloor build-ups
- Intermediate floor layers
- Upper floor layers
- Green roof builds
- Backfill

Foamit can be used in all forms of foundations for building construction as an insulating and light fill material. In low-rise foundations of buildings, Foamit is used as a thermal insulator and for frost protection, as a lightweight layer and as internal fill. Foamit also acts as a capillary break in basement subfloors.

For intermediate layers of different thicknesses, Foamit is used as fill material. Foamit provides a load-bearing casting platform with minimal stress on the intermediate floor structure. Due to its structure, the product is suitable for grading floors in wet rooms.

Foamit can be used as thermal insulation in roofing structures such as in a flat roof, as well as in designing the fall. The roof fall can be carried out accurately because Foamit stays in position and withstands foot traffic even when uncompacted. In green roof build ups, it acts as drainage material. Foamit, even in a layer of soil, is not harmful to the root system of plants. Foam glass aggregates are also well suited for yard and garden structures.

No specialist equipment is required for installation. Foamit can be used to build up all the subbase layers, on top of which a load-bearing layer and a wear-resistant layer are added. Foamit acts as a lightweight fill, for frost protection and as drainage material.

Installation instructions

Foamit aggregates are typically installed by blowing or delivered in big bags. Bulk foam glass aggregates can be delivered to the building site by tippers if intended for ground-based external fill.

Also, bulk foam glass aggregate for use as internal fill can be tipped onto the construction site if there is a dry tipping area for the aggregate (e.g., plywood or a sheet). Foamit can be installed in high locations with a lifting container, by blowing or packaged in big bags. The material can be installed at the site using hand tools. If the Foamit layer needs to be compacted, a light (70–100 kg) vibrating plate compactor is recommended for this.

More detailed instructions can be found in the document **Design instructions for building construction: [foamit.fi/wp-content/uploads/2020/04/foamit-suunnitteluohjeistus-talonrakentamiseen_lowres.pdf](https://wp-content/uploads/2020/04/foamit-suunnitteluohjeistus-talonrakentamiseen_lowres.pdf)**. Only available in Finnish.

Technical data for foam glass aggregates

Attribute	Foamit 20	Foamit 30
Particle size	4–20 mm	20–30 mm
Particle shape	Angular	Angular
Density (dry, loose)	190 kg/m ³ ±15%	210 kg/m ³ ±15%
Compression strength	> 0.6 N/mm ²	> 0.9 N/mm ²
pH value	10.5	10.5
Dry thermal conductivity (W/mK)	0.1	0.1
Fire class	Non-combustible (A1)	Non-combustible (A1)
Indoor air class	M1	M1
Purity	Does not contain organic matter	Does not contain organic matter
Capillary rise height	177 mm	104 mm
Carbon footprint (CO ₂ eq. / m ³)	58.93 kg	58.93 kg
Product credentials	CE, M1, EPD	CE, M1, EPD
Packaging sizes	Loose bulk aggregate, big bag (m ³), small bag (50 l)	Loose bulk aggregate, big bag (m ³)

Foam glass partially compacts as a result of processing and transportation.



Certificates and product approvals: <https://foamit.fi/en/foamit-products/ce/>

Environmental declaration and responsibility: <https://foamit.fi/en/foamit-products/environment/>



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