

GEOMATERIALS
Foam Glass · Expanded Glass



THE FUTURE WANTS INNOVATIONS

DIVERSE SUSTAINABILITY THROUGH
RECYCLED GLASS



SUSTAINABLE.INNOVATIVE.
THINKING FOR THE FUTURE.



RAW MATERIAL: USED GLASS

This valuable secondary raw material is recycled through collection systems.

THE PRODUCTION: Recycled glass is finely ground, mixed and sintered at high temperatures.

Foam Glass: Foam glass occurs out of glass powder during an expansion process in the latest conveyor ovens at a temperature of approximately 900°C. The foam glass cake comes out of the kiln. During this cooling process, tension cracks occur and so it breaks down into our foam glass gravel.

Expanded Glass: The "green powder" is then sintered and foamed (expanded) in the rotary kiln. This process produces light, round granules with a closed fine pore structure.

- **Sustainability through recycling**
- **saves natural resources**
- **environmentally friendly**

HIGH QUALITY RECYCLED GLASS PRODUCTS

STRONG. WARM. DURABLE.

The main material properties:



highly thermally insulating

through the air spaces enclosed in the material



dimensionally stable ➔ **durable**

no shrinkage or swelling, no settlement,
dimensionally stable up to 750°C



light & load bearing

versatile, resilience is easy to control



non-Capillary

moisture resistant



resistant

to frost, aging, rotting, moisture, acid,
insects, rodents,



non-combustible class A1

non-flammable, does not develop any
harmful gases



sound absorbing

increases the acoustic effectiveness of
building materials



environmentally friendly

non-toxic, fiber & solvent free, odorless,
anti-allergenic, simple dismantling

➔ **The revolution in efficiency and versatility**

MULTITALENTS INCLUDING EASY APPLICATION.

APPLICATION: FLOOR CONSTRUCTION GEOMATERIALS FOAM GLASS

- replaces gravel, sub base and extruding rigid foam panels
- enables thermal bridge-free construction
- with or without strip footing
- large-scale use in commercial and industrial buildings

ADVANTAGES

- load bearing insulation with high sustainability
- higher compressive strength
- easy and quick to install
- significant lower construction height
- saves time and money



APPLICATION: RENOVATION GEOMATERIALS FOAM GLASS / EXPANDED GLASS

- load-bearing, thermally insulating fill and drainage in one step reduces construction height
- floor construction without ground slab - floor renovation
- core, vault, gradient insulation
- draining of walls and basements
- thermal rehabilitation of balconies

ADVANTAGES

- light as a feather - low burden
- moisture resistant
- open to diffusion
- perfect drainage
- heavy-duty leveling compound
- ecological living quality



APPLICATION: SURFACE MODELLING GEOMATERIALS FOAM GLASS

- slope stabilization - reduces slope pressure, allows water to drain away easily
- Backfilling of swimming pools - drainage and thermal insulation in one go
- sports field: perfect lengthwise and cross drainage
- for green meeting zones above underground car parks or as cover for tunnels

ADVANTAGES

- high draining function
- reduce thermal losses
- can be modelled
- significant weight relief



FLEXIBILITY AND WARMTH.



GEOMATERIALS Expanded Glass is formed of lightweight beads to banish cold, damp, and noise. This is a building material that is light as a feather, moisture-resistant, dimensionally stable (no settlement of the bound fill) and resistant to aging. Moreover, it is ideal as a loose or bound thermally insulating fill.

As a lightweight insulating and leveling fill, this building material meets the highest quality requirements and can be used in a wide variety of applications – be it for joist ceilings, cavities and gaps, or floors.

GEOMATERIALS Expanded Glass is THE environmentally friendly, mineral alternative to conventional cement-bound EPS fill under the screed.



photo: © Poraver, loose insulating fill



photo: © Geomaterials, bound leveling fill



photo: © Cetin Sönmezocak, vault insulation

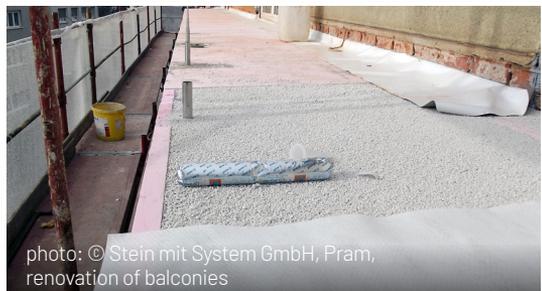


photo: © Stein mit System GmbH, Pram, renovation of balconies



photo: © Geomaterials, Nachträgliche Kerndämmung von zweischaligem Mauerwerk



Foto: © Ziegelwerk EDER GmbH & Co KG, Peuerbach, Ziegelhinterfüllung

MORE REASONS TO FEEL GOOD.



Let's talk about **GEOMATERIALS Foam Glass**. It is a building material for floor structures that saves energy, is light and load bearing, has thermal insulation properties and contributes to a comfortable indoor climate. A building material that is both economically and environmentally sound.

GEOMATERIALS Foam Glass is a high quality insulation material made of 100% recovered glass, meeting all requirements of a lightweight aggregate with the best characteristics. **GEOMATERIALS Foam Glass** takes over the draining function, is load bearing and functions simultaneously as a thermal insulation for covered construction components. This is a brilliant solution for a thermal bridge-free floor construction in one easy step.



PHOTO: © INGO NOVAK, NEW BUILDING



photo: © Födermayr Hargelsberg, renovation



photo: © SYNergieBau KG, drainage filling



PHOTO: © GEOMATERIALS, FACTORY BUILDING

MAKE SURFACE MODELLING EASY

The draining lightweight fill for gardening and landscaping

Especially the perfect infiltration characteristics, combined with the low weight and the excellent thermal insulation makes **GEOMATERIALS Foam Glass** unbeatable in this application. Through the perfect lengthwise and cross drainage, the space dries much faster and is playable quicker after precipitation.



photo: © FC St. Gallen Event AG

GEOMATERIALS Foam Glass not only reduces the surcharge with only 150 kg/m^3 , but it also has higher compressive strength with simpler and less expensive installation technique.



photo: © Erste Group/Toni Rappelerberger, Auböck+Kárász, Pau_Lorberg

Despite the lightness, it remains stable because the foamed grains are closed-cell and thus do not absorb any water. The material interlocks itself, is resistant to pressure and therefore reduces the slope pressure. At the same time, sloping water can drain off easily.



photo: © Ganz Baumaterial, St. Gallen

GEOMATERIALS Foam Glass interlocks itself, does not roll and therefore can be installed at inclined surfaces up to 15° . Due to the high friction angle, a modelling of slopes up to 45° is possible.



photo: © Haider Bauunternehmung, ÖBB Eisenberger, ÖBB Deopito, ÖBB Pachoinig, Koralmahntunnel



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