GLAPOR

SCHAUMGLASPRODUKTE

Thermal Insulation

Cellular Glass

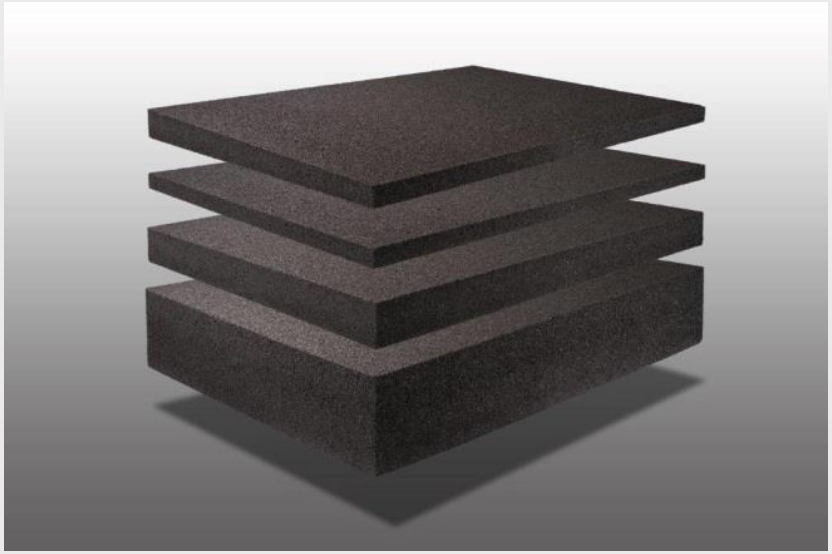
Company

GLAPOR Werk Mitterteich GmbH

- D-95666 Mitterteich
  - Production Plant
    - Cellular Glass Boards
    - Cellular Glass Gravel
  - Manufacturing
  - R&D
  - Engineering

GLAssPORes - Products

Cellular Glass - Boards



Cellular Glass - Gravel

Arguments for Cellular Glass

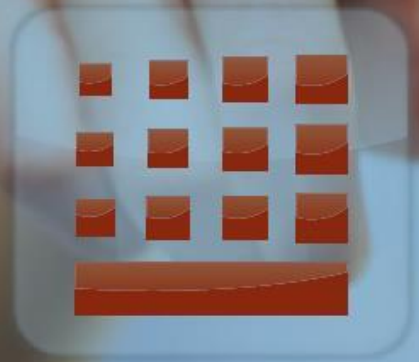
GLAPOR SCHAUMGLASPRODUKTE

Why to choose GLAPOR foam glass products

- High compressive strength
- Lightweight
- Fire resistant
- Frost resistant
- Resistant to fungi and mould
- Resistant to rodents
- Saves natural resources
- 100 % recycled glass

GLAPOR foam glass boards

- Non-compressible
- Vapour-proof
- Available in different board sizes



GLAPOR foam glass gravel

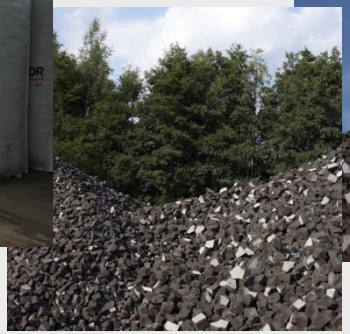
- Zero-capillary action
- Simplifies the floor construction
- Flexible in regards to installation heights

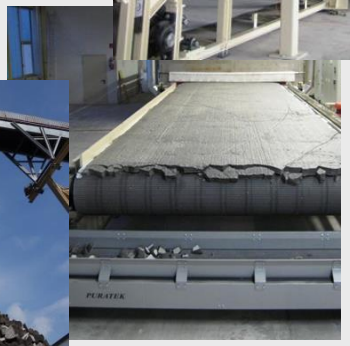
DGNB

Cellular Glass - Production

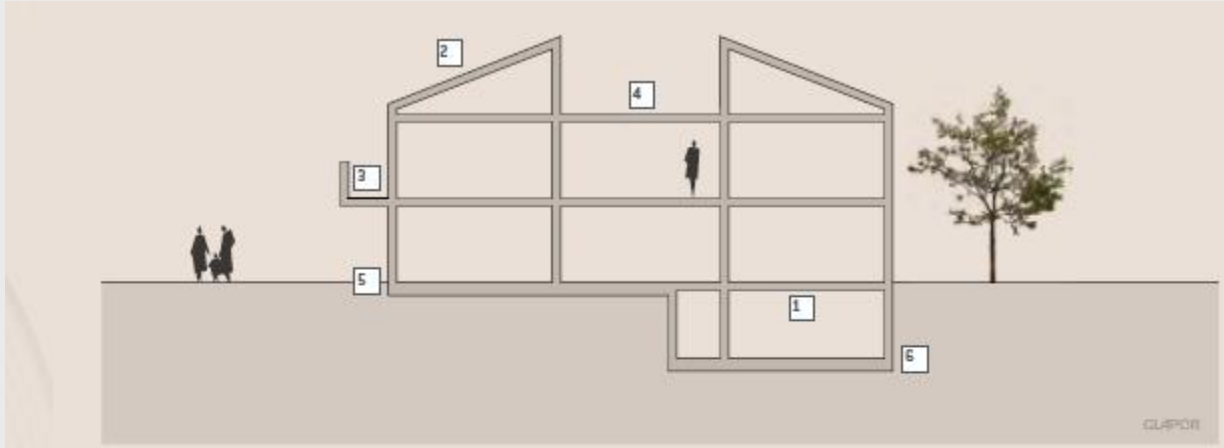
„UPCYCLING“

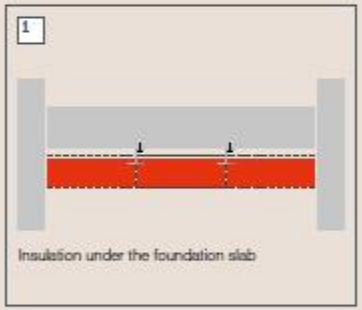
grinded glass (powder)

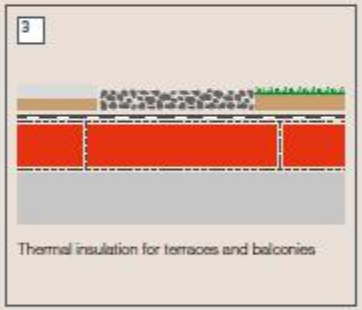


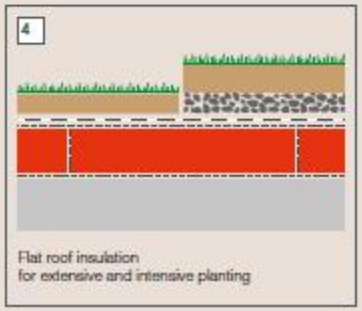


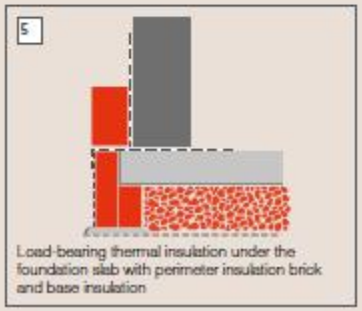
Cellular Glass in Residential Buildings

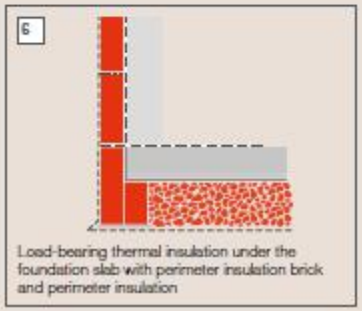




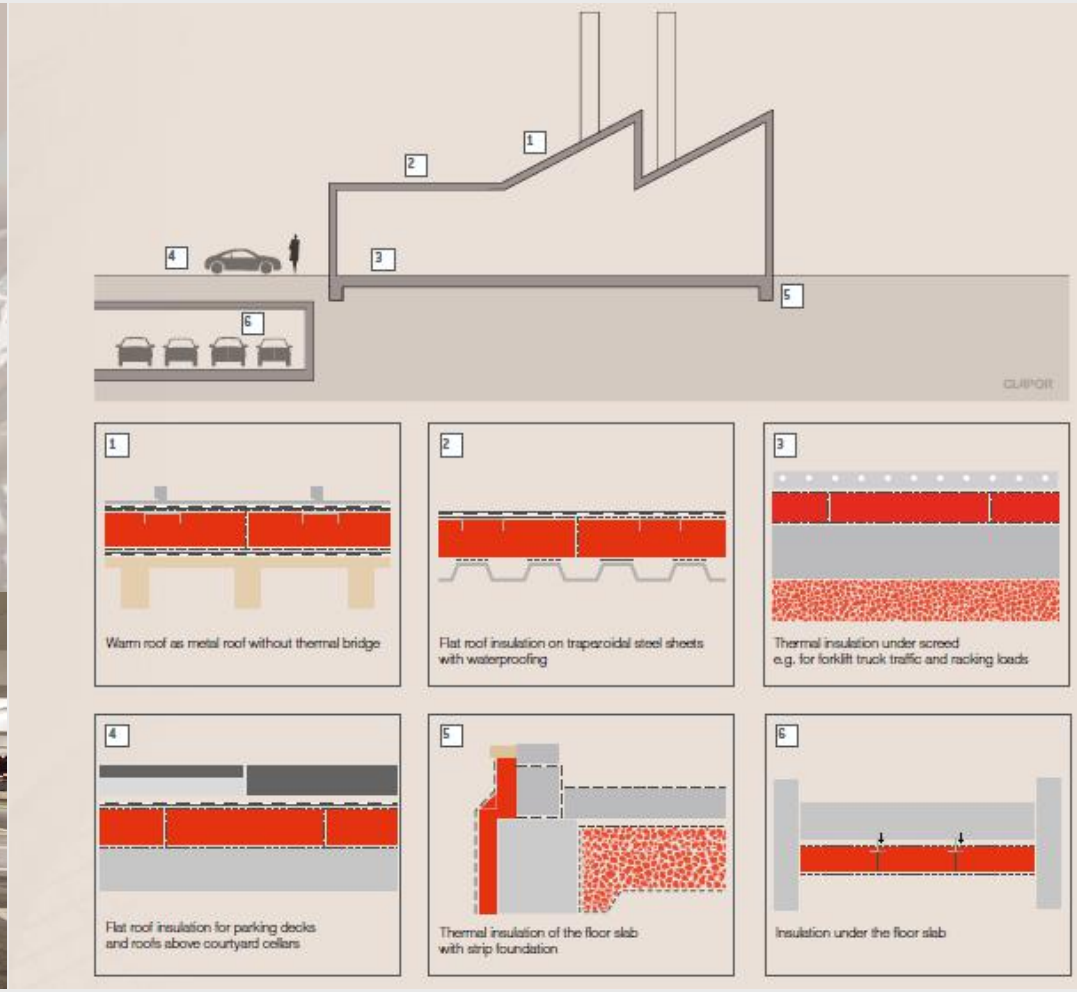




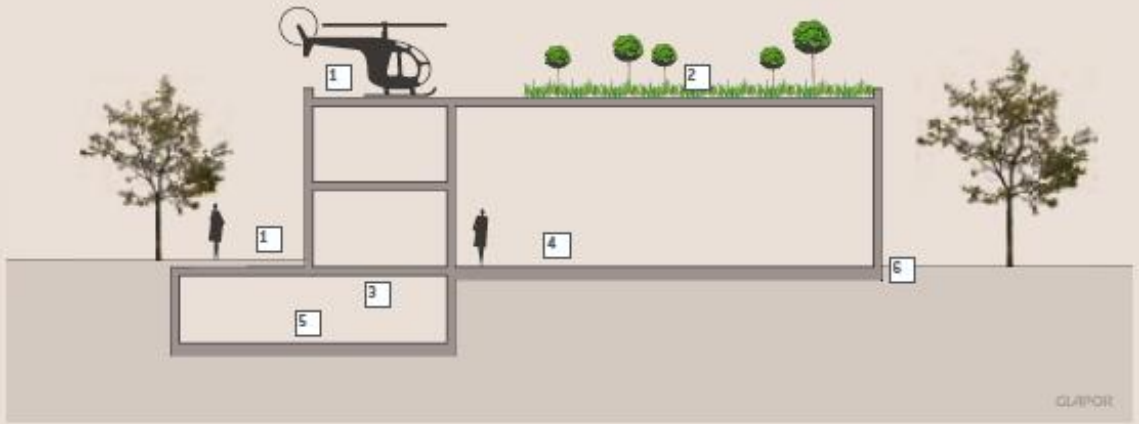


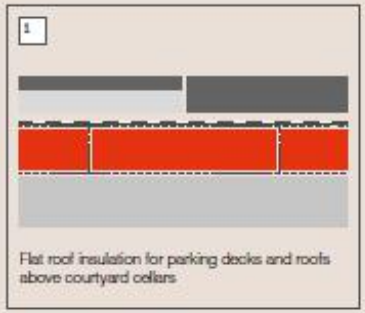


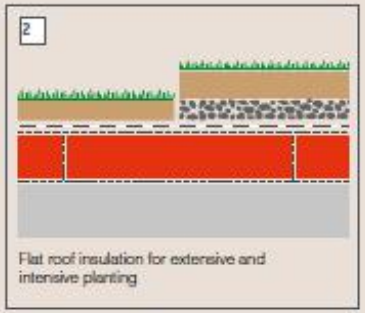
Cellular Glass in Industrial Buildings

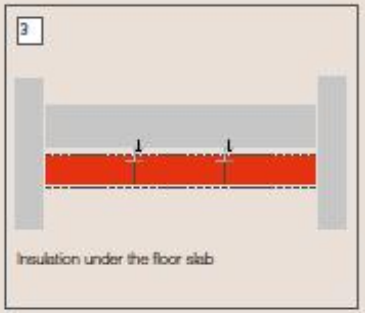


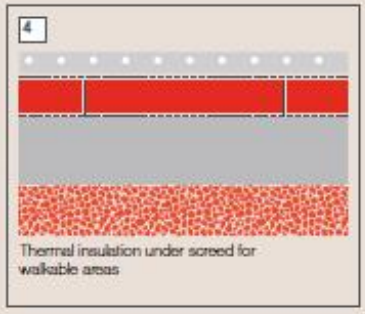
Cellular Glass in Non-Residential Buildings

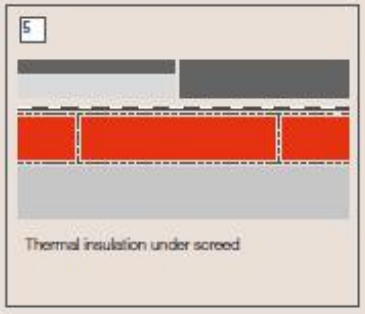


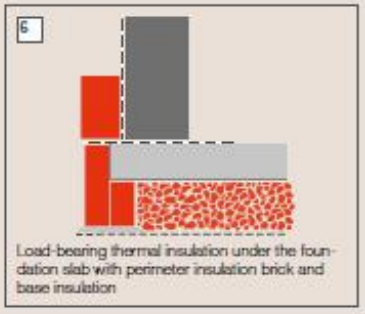




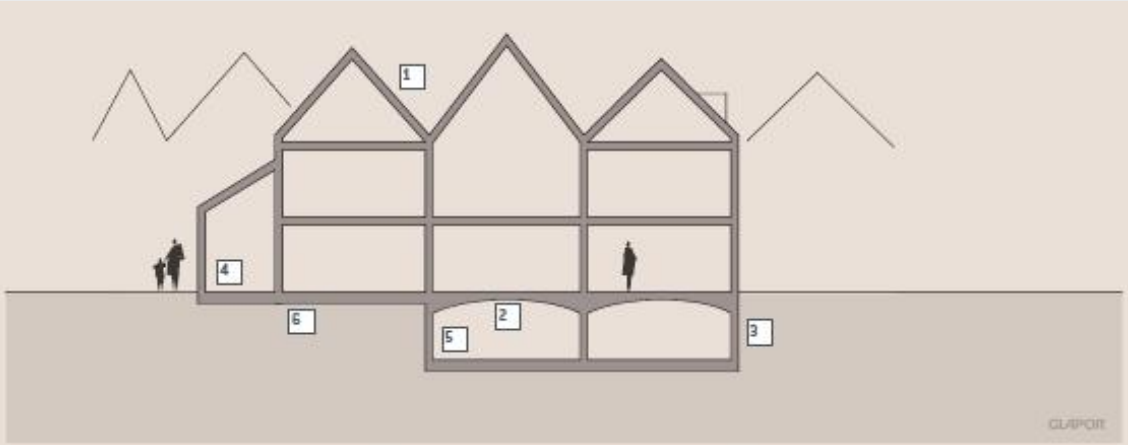


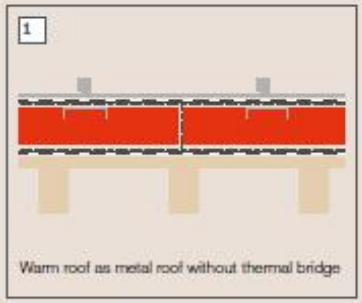


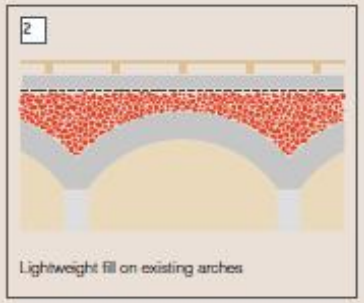


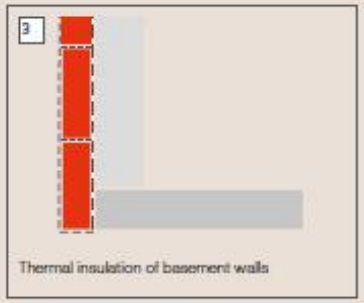


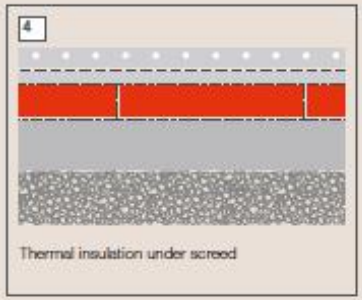
Cellular Glass in Redevelopment & Renovation

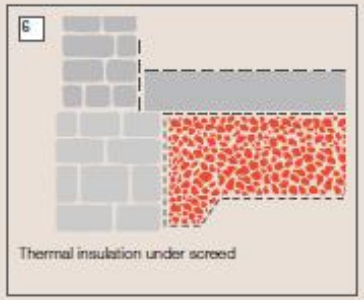




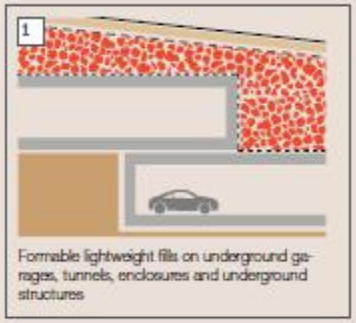




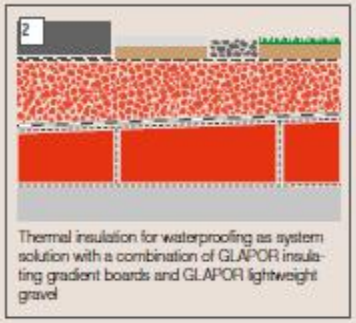




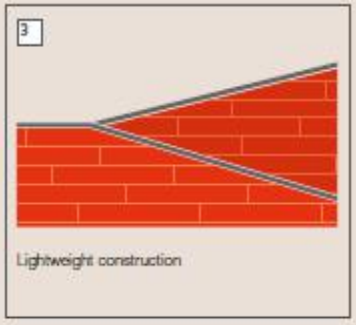
Cellular Glass in Special Constructions



Formable lightweight fills on underground garages, tunnels, enclosures and underground structures



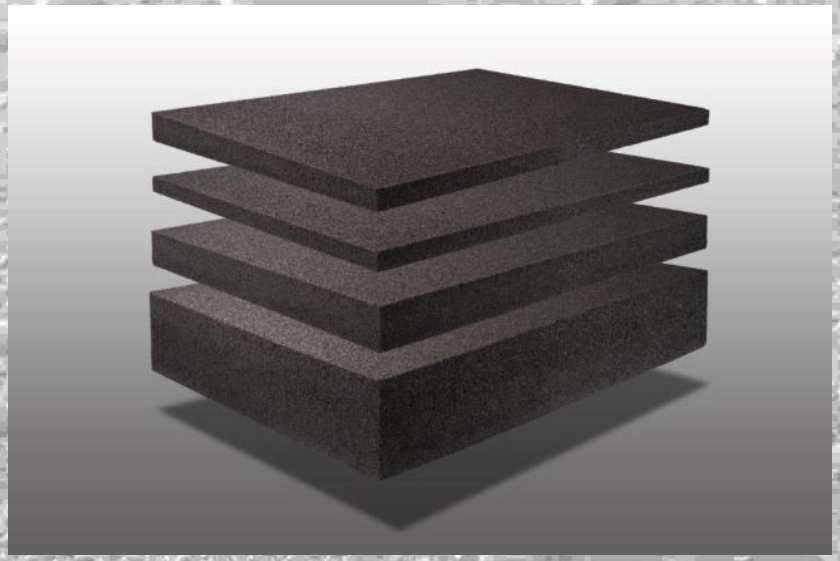
Thermal insulation for waterproofing as system solution with a combination of GLAPOR insulating gradient boards and GLAPOR lightweight gravel



Lightweight construction

Cellular Glass Boards

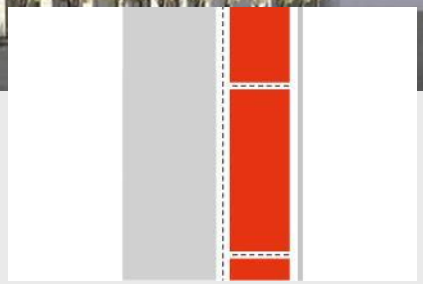
GLAPOR SCHAUMGLASPRODUKTE



Density	100 – 180 kg/m³
Thermal conductivity λ	0,052 – 0,066 W/mK
Compressive strength	0,60 – 1,7 N/mm²
Dimensions	length / width (max.) 3,0 x 1,5 m
Thicknesses	40 - 160 mm

DGNB

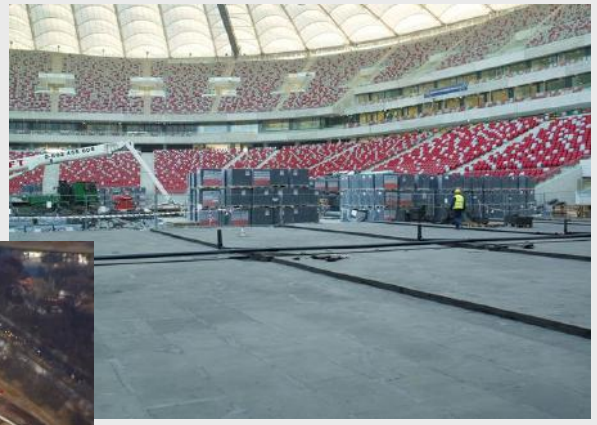
Projects…

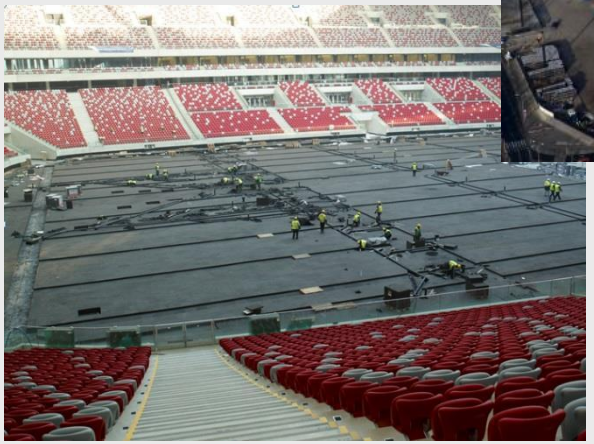


Sihlpost Zürich (CH),
Thermal insulation inside air shaft
2900 m² Cellular Glass Boards

Projects…

Playground
underneath: parking area
& service / supply rooms
Thickness: 60 – 300 mm





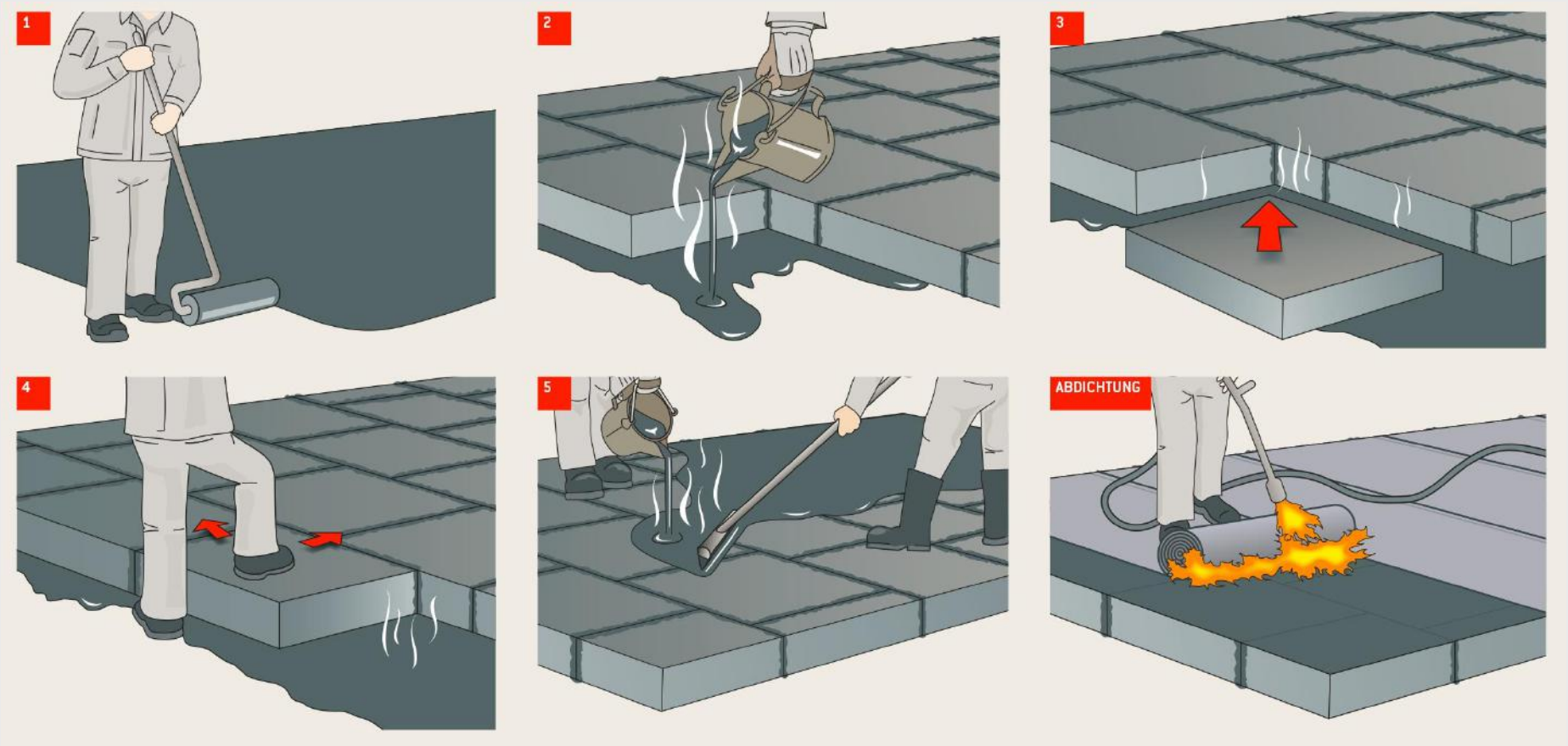
Football stadium Warschau (Pl),
Thermal insulation
33.200 m² Cellular Glass Boards

Projects…

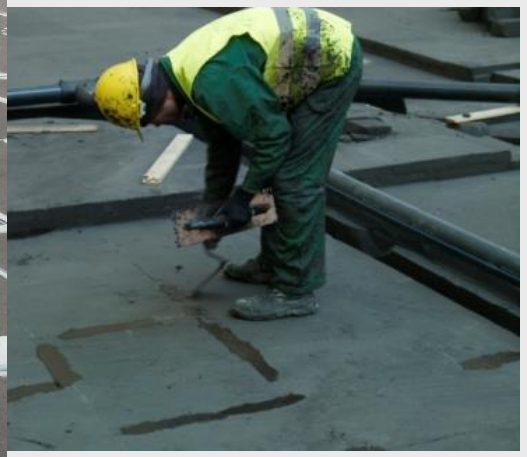
Airport main entrance; underneath the railway station

Airport Berlin BBI (DE)
Inclined thermal roof insulation, thickness 100 – 650mm
4.500m² Cellular Glass Boards

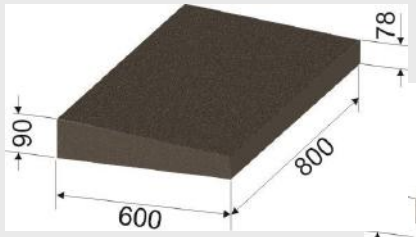
Cellular Glass Boards - Construction

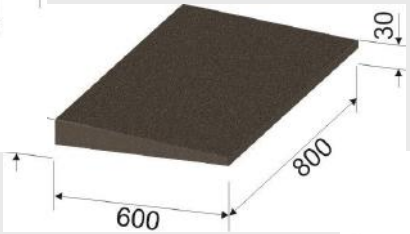


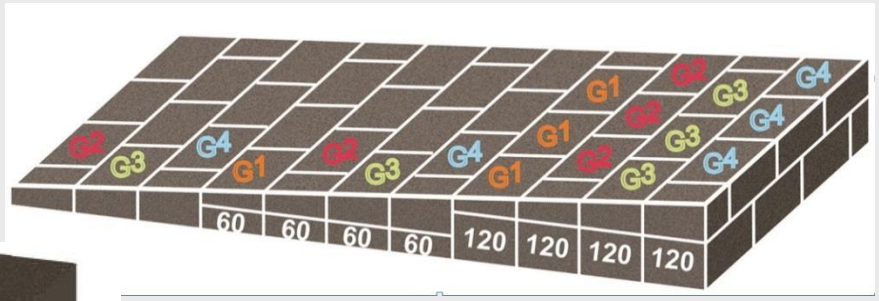
Cellular Glass Boards - Construction

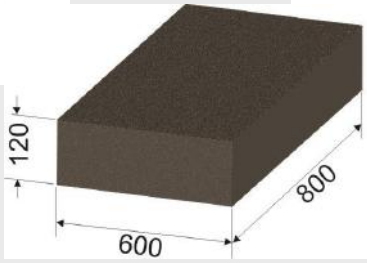


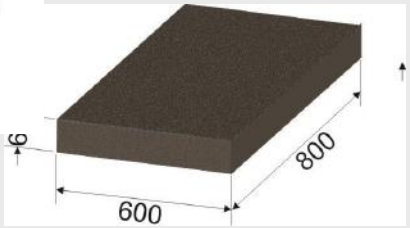
Cellular Glass Boards – Inclined flat roof

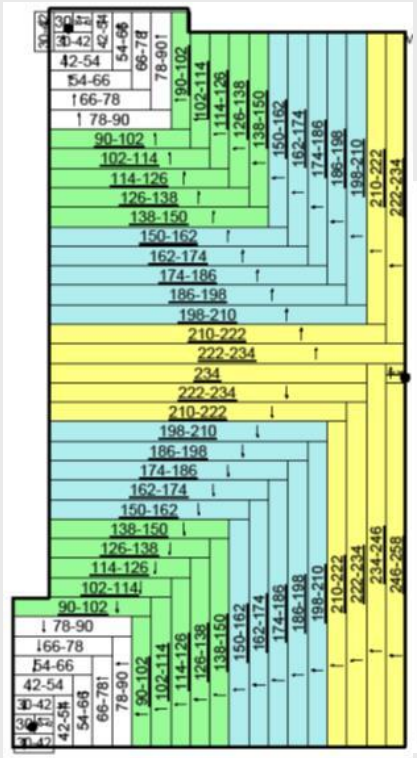












Customized Manufacturing
Layout / Kalkulation
Itemized part list

Cellular Glass Gravel

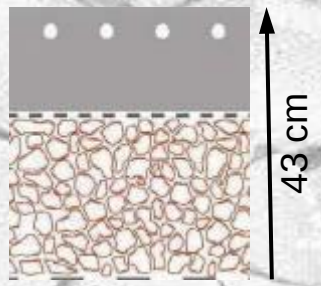
Bulk density	105 – 175 kg/m³
Thermal conductivity λ	0,78 – 0,12 W/mK
Compressive strength	0,4 – 1,2 N/mm²
Layer Thicknesses	15 - 300 cm

Cellular Glass Gravel

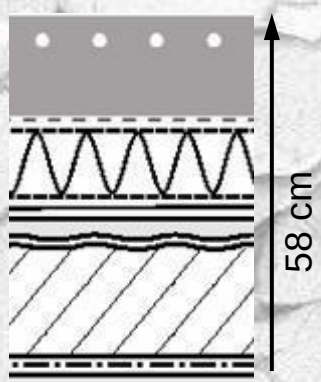
Cellular Glass Gravel

- Easy & fast to construct
- Reduction of working steps
- Fault-tolerant

GLAPOR - Gravel



XPS

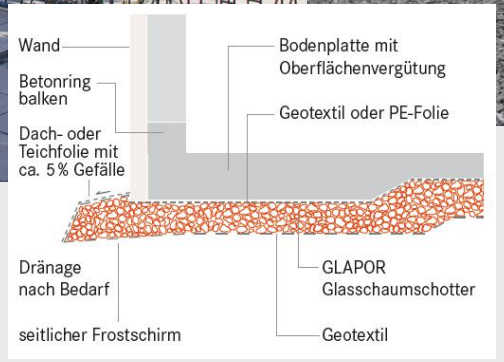


Example:

Insulation layer under a base plate for a 1000 m² hall

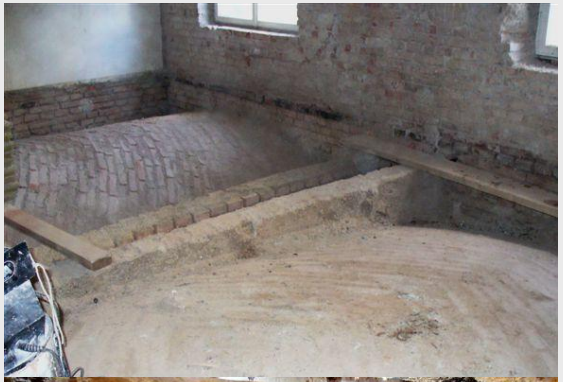
Installation time of GLAPOR Gravel ~ 8 hours

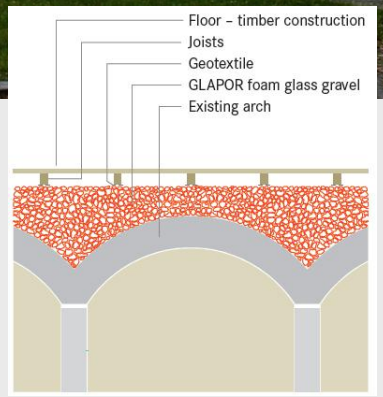
Projects…

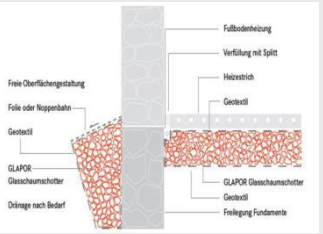


Triple Sports Hall of secondary school Brandenburg,
Thermal insulation under floor slab
725 m³ Cellular Glass Gravel

Projects…



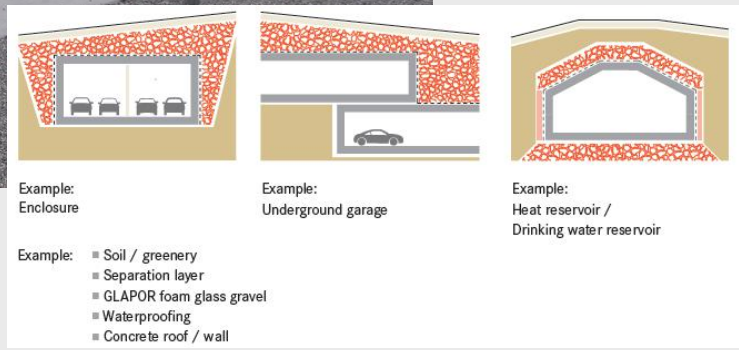




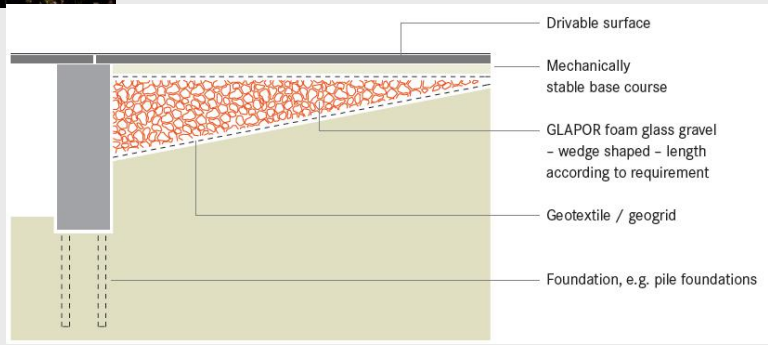
Castle Friedrichsburg,
Thermal insulation last ceiling
175 m³ Cellular Glass Gravel

Projects…

Small Olympia Hall in Munich,
Lightweight infill
800 m³ Cellular Glass Gravel



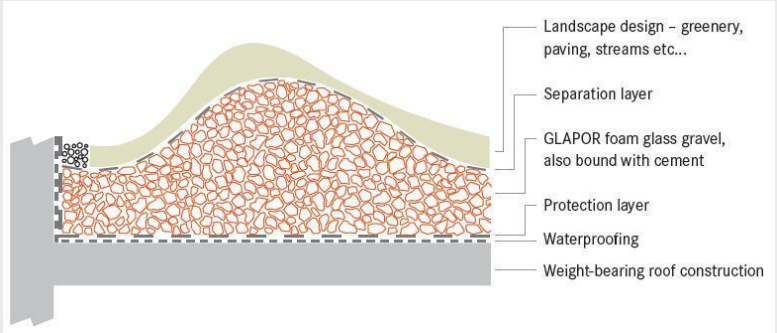
Projects…



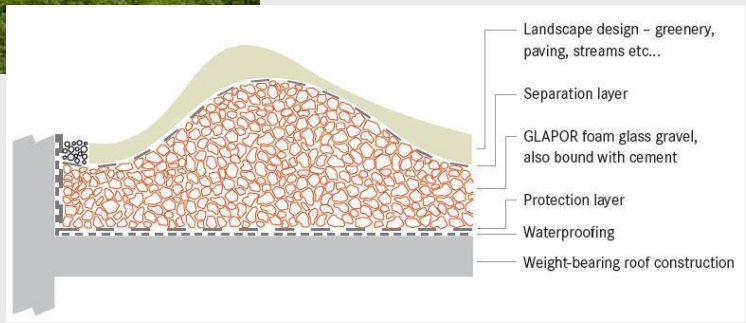
Bridge called „Löwenbrücke“ in Bamberg,
Bridge counter bearing, to avoid compression setting
1000 m³ Cellular Glass Gravel

Projects…

Tivoli Hotel und Congress Center,
Surface design on parking roof with walkways and greens
1400 m³ Cellular Glass Gravel



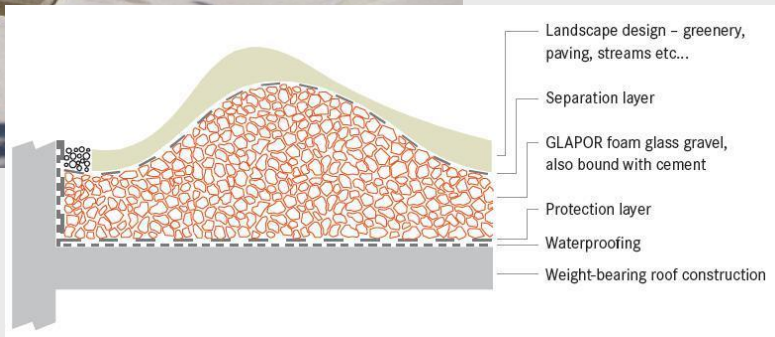
Projects…



Swarowski Kistallwelten,
Landscaping
1.100m³ Cellular Glass Gravel

Projects…

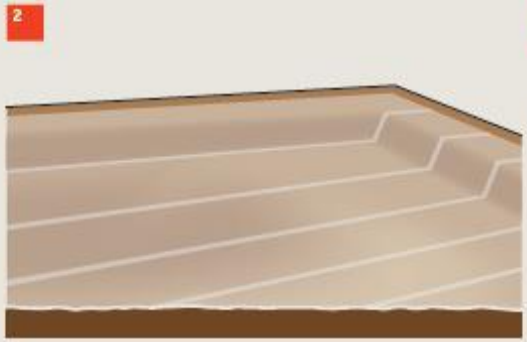
Leonhardsplatz Innsbruck (A),
Surface design on parking roof with walkways and greens
3000 m³ Cellular Glass Gravel



Cellular Glass Gravel - Delivery

Cellular Glass Gravel - Construction

Excavation
The load bearing (compacted) ground should be slightly raised in the middle.

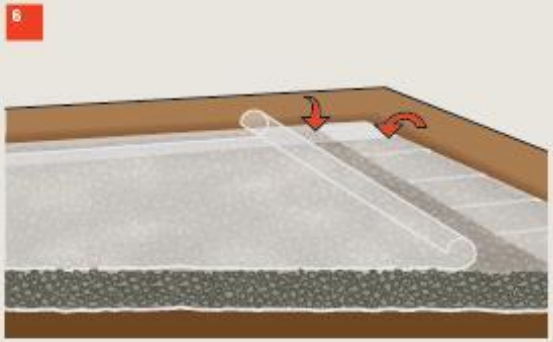


Geotextile
Lay geotextile as separator, overlapping 10 cm. In the edge area allow enough overlap so that the fill can be covered afterwards.

Depositing
The loose foam glass gravel is deposited directly in the construction site. A crane is necessary when using a textile chute or for delivery of big bags.

Distribution - GLAPOR foam glass gravel is deposited from the back to the front by means of an excavator shovel or manually in order not to affect the already made ballast bed.

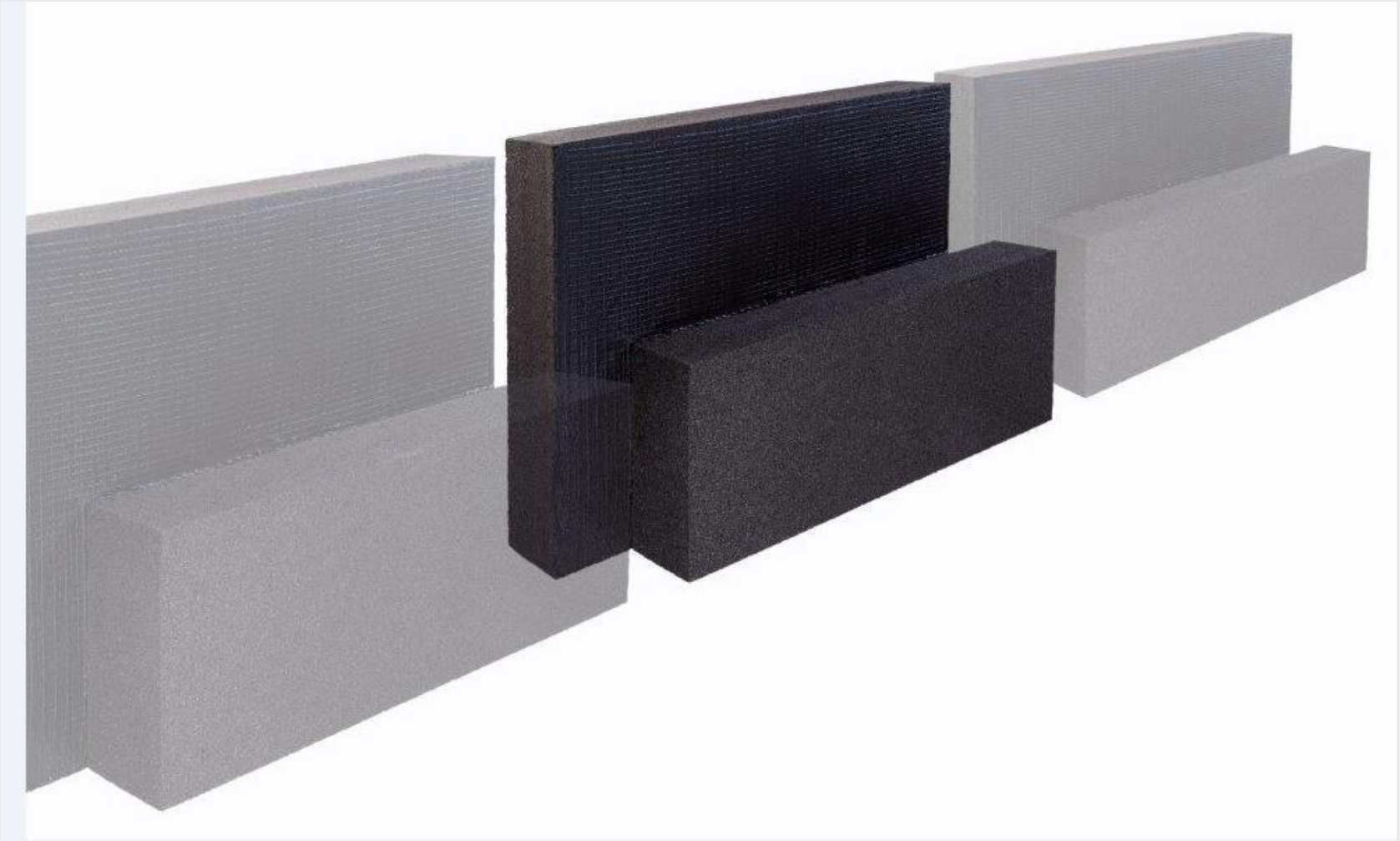
Compaction - The compaction of the GLAPOR gravel layer is executed by a light plate vibrator recommended by Glapor* with a factor of 1,3 : 1.



Separation layer and formwork - The geotextile laid in the earth area is to be folded over the finished fill. Then the separation layer for the floor slab can be installed properly.

Cellular Glass Gravel - Construction

„RDS“ the perfect insulation solution



„RDS“ the perfect insulation solution

THE PERFECT INSULATION SOLUTION

The first step for your warm and dry home!

Long Lasting	– Weatherproof, resistant to rodents and insects
Permanent Insulation	– Protects against water (rain) and cold
Purely Mineral	– 100 % recycled waste glass, high compressive strength
Labour and Time Saving Construction	– Simple, fast, clean, no formwork required

RDS – construction area








Certificates