



# Cellular Glass Insulation.

Lifetime Characteristics for Generations.





*"As an architect, you design for the present, with an awareness of the past, for a future which is essentially unknown."*

Norman Foster



## **GLASS.**

**Accepted in daily life. Established since centuries. Reusable for generations.**

Glass isn't just a solution for today – it's a promise for the future.

It helps us handle the challenges of time and water in a smart way, showing our commitment to create buildings and constructions, that endure.



# 100% since Day 1.

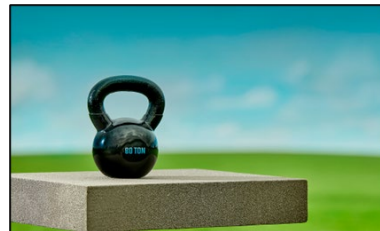
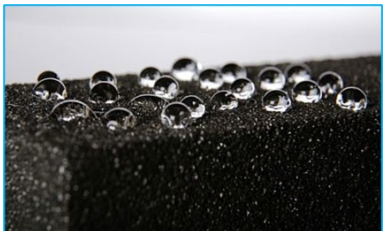
## GLAPOR's Decade-Long Commitment to Reusable Cellular Glass Insulation.

Since 2007, at GLAPOR in Mitterteich, located in the German Oberpfalz region, we have been driven by the passion to produce and further develop sustainable, reusable, and highly engineered cellular glass insulating materials - **made from 100% recycled glass** - to meet the modern requirements of the building industry. Leveraging the well-known properties of glass, we aim to establish reliable benchmarks for climate-neutral construction methods, placing a special emphasis on cross-generational durability and functionality.



# Cellular Glass Insulation.

## Advantages.



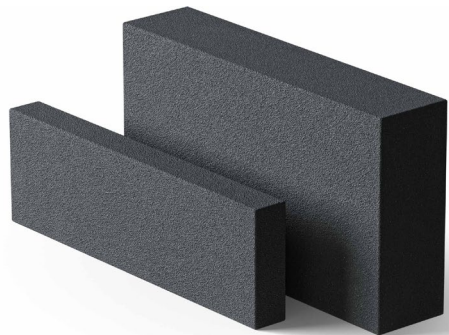
- ✓ Non-combustible
- ✓ Water- and vaportight
- ✓ High compressive strength (600-1600 kPa)
- ✓ Non-deforming
- ✓ Plastic-free & Urban Mining ready



# Plastic out. Cellular Glass in.

## Combining CG Boards and Gravel. In 3 Steps.

As part of the rapidly evolving construction revolution, with a focus on CO2-optimized and climate-neutral building practices, oil-based insulation materials are increasingly being replaced by eco-friendly alternatives. In the insulation of foundation slabs, sustainable and plastic-free alternatives, such as cellular glass gravel or cellular glass panels, can be reliably planned and installed, ensuring both recyclability and environmental responsibility. Notably, GLAPOR stands out as the sole global provider offering both cellular glass boards and gravel, backed by extensive expertise in both products.





# Installing a Sustainable Insulation under Foundation Slabs.

## Step 1: Formwork.



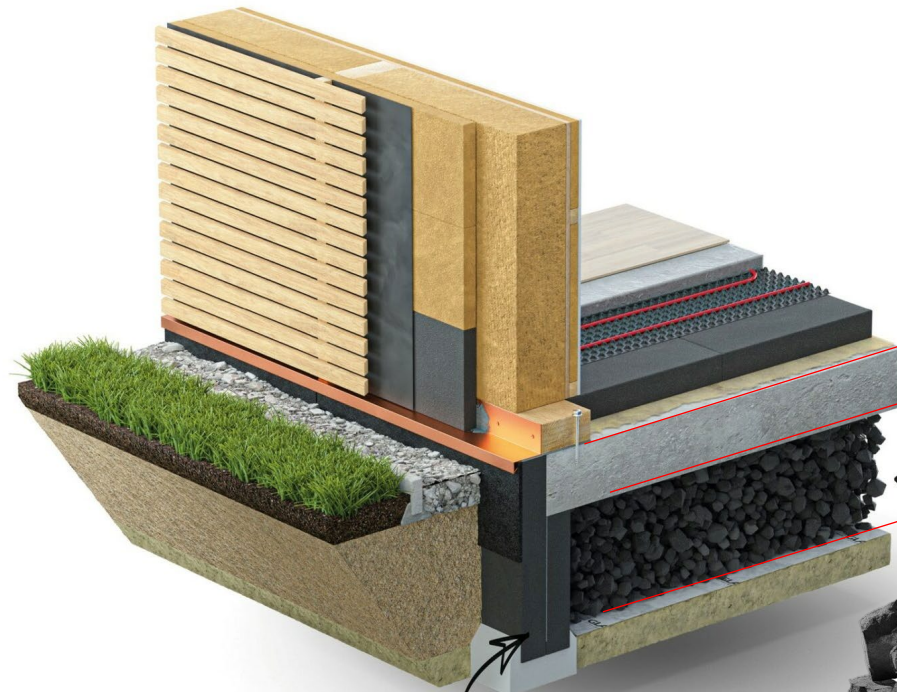
Assembly of formwork “RDS” (Randdämmschalung) elements using GLAPOR boards - eliminating wooden formwork and subsequent end-face insulation work.





# Planning: Dimensions of RDS System

RDS Formwork heights and gravel bed.



„RDS 55/30“

Slab thickness – e.g. 25 cm

Insulation thickness– e.g. 30 cm

55 cm

25 cm

30 cm

(This variant replaces classic 10 cm XPS insulation.)



Zugelassen durch:  
Deutsches Institut  
für Bautechnik  
APPROVED

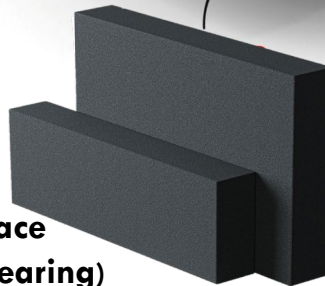
Z-23.34-1778

**Cellular Glass Gravel SG 800 P**

(Load-bearing insulation,  
800 kPa, loosely filled in and  
compacted 1,3: 1,  $\lambda = 0,110 \text{ W/mK}$ )

**RDS Elements**

(Formwork and end-face  
insulation, non load-bearing)





# Installing a Sustainable Insulation under Foundation Slabs.

## Step 2: Distributing cellular glass gravel & compacting.



The GLAPOR cellular glass gravel is distributed loosely using a rake and subsequently compacted with a standard vibrating plate. Just like sand.

Gravel will be delivered in big bags (1,5 and 3 cbm) or containers (up to 92 cbm).



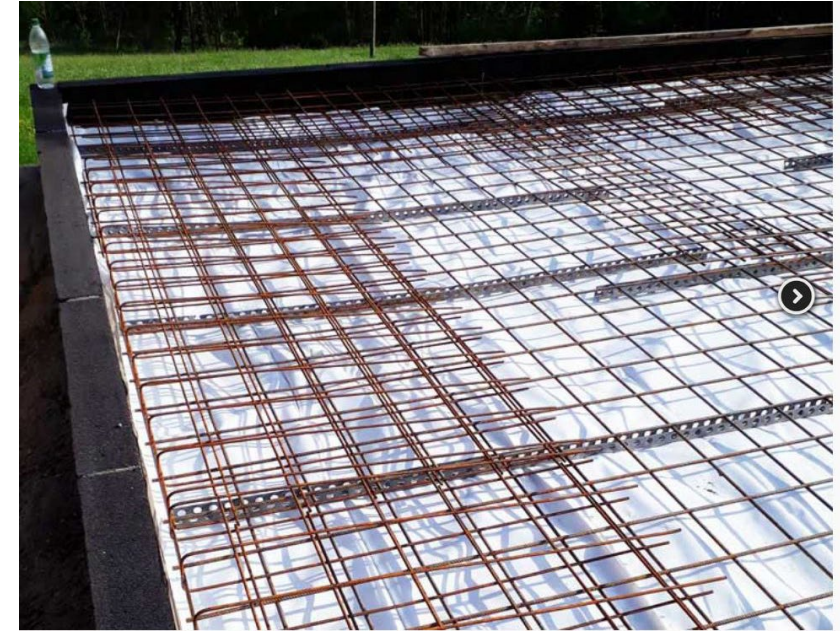


# Installing a Sustainable Insulation under Foundation Slabs.

## Step 3: Slab installation.



After compaction, a separating layer is applied, reinforcement is laid, and the standard concrete works are carried out. Info: solid wood ceiling elements are often being installed to save on concrete.





# RDS Impressions.

## City of Frankenau becomes Urban Mining ready.



Bundesministerium  
für Wirtschaft  
und Klimaschutz

Funded by the Federal Ministry





# 3 Steps to more Circularity

## 1. Install RDS Formwork

(non-load-bearing, just formwork and insulation, easy to install)

Save: Wooden Formwork, end-face Insulation, time and CO2

## 2. Install loadbearing Cellular Glass Insulation SG 800 P

(fill in, distribute, compact)

Save: Plastic and CO2

## 3. Install Foundationslab

(classic way with reinforced concrete or as an wooden CLT element)





# Spoileralert: GLAPOR substituting whole Foundationslabs and Stripefoundations

## Showroom Berlin / Tverstedt House Denmark



Berlin 10/23: Worldwide first concrete-free foundation and floorslabs: Floor, Insulation and Waterproofing in ONE section. **Fully reusable.**



Consistently biobased.

n/a

Nikolova /Aarsø  
Architects Copenhagen







# GLAPOR. Cellular Glass Insulation.

Shaping the new building world.

Contact: [helge.floege@glapor.de](mailto:helge.floege@glapor.de)