MORE REASON TO FEEL GOOD

LOAD-BEARING
INSULATION
FOR GROUND SLABS

TECHNICAL DATA

VERSION JANUARY 2014

GEOCELL
SCHAUMGLAS

A HIGH QUALITY RECYCLING GLASS PRODUCT

TECHNICAL DATA

GEOCELL® FOAM GLASS GRAVEL

APPROVALS			STANDARD
Building Material Approval		DiBt Z-23.34-1579	
THERMAL CONDUCTIVITY			
Thermal Conductivity (dry) (1)	λ_{90}	<0,08 [W/mK]	DIN EN 12939v
Thermal Conductivity (Design Value)	λ_{bem}	0,11 [W/mK]	
LOAD CAPACITY			
Design value of compressive strength at compaction factor 1:1,3 (2)	σ_{cd}	275 [kN/m²]	DIN EN 1054/1055
Compressive strength (10% compression) (3)	$\sigma_{10\%}$	≥570 [kN/m²]	DIN EN 826
GENERAL DATA			
Delivery		bulk or BigBags	DIN EN 18123
Density (dry bulk)(4)		approx. 150 [kg/m³]	DIN EN 1097-3
Granular size	K	approx. 10-60 [mm]	DiBt Z-23.34-1579
Internal water absorption	w_i	0,00 [Vol%]	factory data
Water adsorption (5)	w_a	<10,00 [Vol%] (reversible)	factory data
Friction angle (at compaction 1:1,3) (6)	Φ	45-48°	factory data
Cohesion (design value)	C	0 [kN/m²]	factory data
Apparent cohesion (design value)	C_s	0 [kN/m²]	factory data
Design value for shear stress (7)	Φ	35°	
Water permeability	K_f	~ 4,4 * 10-2 [m/s]	
Condensation		prevents condensation in the building component	
Freeze-thaw (8)		frost resistant	factory data
Diffusion properties	μ	diffusible	factory data
Gassing with heat		no gas emission, odor free	factory data
Capillarity (9)		anti-capillarity against rising water	factory data
Fire resistance		incombustible class A1	DIN 4102-1
Resistance to environmental influences		anti-aging, rodent-, bacteria- and rot-resistant	factory data
Material radiation		no radiation or odors	factory data
Alkali resistance		long-term stability, no damage to concrete	factory data
Environmental impact		considered unpolluted excavation. Eluate test met. Meets BbodSchG guidelines.	

(1) according to the General Technical Approval: testing of the thermal conductivity according to DIN EN 12667 and DIN EN 12939
(2) allowable compressive stress in compliance with global safety factors for verification according to DIN 1054, 1976-11
(3) as specified by the General Technical Approval: Uniaxial compression test test according to DIN EN 826 (1996-05)
(4) Taking into account the weight proportion of adsorbed water on the grain surface
(5) free and bound water at the particle surface
(6) factory data
(7) horizontal forces introduced into the insulating material may not exceed 20% of the design value of normal stress.
(8) According to the guidlines of the General Technical Approval Z – 23.34 – 1579 dd. 26/02/09 the manufacturer of GEOCELL is requested to measure freeze-thaw fluctuating (DIN 52 104-1) on a regular basis
(9) capillary property of the material is obtained even after compression due to exisiting voids

Note: For processing GEOCELL cellular glass gravel please refer to our guideline 01/2010, May 2010.

GEOCELL SCHAUMGLAS

GEOCELL® FOAM GLASS GRAVEL

THE ECOLOGICAL ALTERNATIVE FOR ALL FOUNDATIONS.

APPROVED QUALITY
DIBT-ZULASSUNG Z-23.34-1579

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