



TECHNICAL DATA SHEET

GLASS BEADS

General information

GLASS BEADS

APPLICATION	High performance filter media for single and multi-layer filtration in water treatment systems.
MATERIAL	Polished glass beads made of soda lime glass. <ul style="list-style-type: none">• Hydrolytic resistance on Glass Beads: HGB 2 (according to ISO 720)• Acidic resistance on Glass Beads: S2 (according to DIN 12116)• Alkaline resistance on Glass Beads: A1 (according to ISO 695)
COLOUR	Transparent
SURFACE	Polished
INSTALLATION	<ul style="list-style-type: none">• Glass Beads replace natural sand and gravel in filter beds and are applied in the same way as mineral filter media.• The product is delivered from the factory in a pure and clean condition, therefore no special preparation or conditioning is necessary providing that the packaging or wrapping is not damaged.• In case of replacement in an existing system filled with sand or gravel, a new setting of parameters such as backwash and velocity is required.
LIFETIME	<ul style="list-style-type: none">• If used properly, the product has no lifetime limits.• There is no need for special routine checks during use apart from the mandatory process or system checks.
PACKAGING	<ul style="list-style-type: none">• Glass Beads are packed in plastic bags (20 kg) or big bags (1'000 kg).• Each bag is labeled with article, diameter, lot #, and quantity.
STORAGE	<ul style="list-style-type: none">• Glass Beads are sensitive to high temperature deviations. Protect from frost and store away from direct sun light, in a cool and dry place.• Keep product in its original closed packaging until use and away from incompatible materials such as strong oxidizing agents.
SPECIFIC WEIGHT	2.50 kg/l



Standard sizes

ARTICLE	BEADS DIAMETER (size distribution)			BULK DENSITY (approx.)		ROUNDNESS ratio width/length (Xmin/Xmax)
	mm	mesh	%	kg/l	lb/ft³	Nominal values
GRADE 01	> 0.60	< 30	< 1	1.46	91.14	≥ 0.95
	0.50 – 0.60	35 – 30	≤ 5			
	0.25 – 0.50	60 – 35	≥ 90			
	0.20 – 0.25	70 – 60	≤ 5			
	< 0.20	> 70	< 1			
GRADE 02	> 1.18	< 16	< 1	1.49	93	≥ 0.95
	1.10 – 1.18	* – 16	≤ 2			
	1.00 – 1.10	18 – *	≤ 10			
	0.50 – 1.00	35 – 18	≥ 85			
	0.40 – 0.50	40 – 35	≤ 5			
	0.30 – 0.40	50 – 40	≤ 2			
< 0.30	> 50	< 1				
GRADE 03	> 2.24	< 8	< 1	1.52	95	≥ 0.95
	2.10 – 2.24	10 – 8	≤ 5			
	1.50 – 2.10	* – 10	≥ 85			
	1.40 – 1.50	14 – *	≤ 10			
	< 1.40	> 14	< 1			
GRADE 04	> 4.20	*	< 1	1.53	96	≥ 0.94
	4.00 – 4.20	5 – *	≤ 5			
	2.80 – 4.00	7 – 5	≥ 90			
	2.60 – 2.80	* – 5	≤ 5			
	< 2.60	*	≤ 1			

*Standard US mesh number near particle size.

Roundness: simultaneous measurement of roundness through digital image processing (Retsch-Camsizer, value b/l3).

Physical properties

DEFORMATION TEMPERATURE	600 °C	1'112 °F
SOFTENING POINT (LITTLEON-POINT)	741 °C	1'366 °F
MELTING POINT	1'475 °C	2'687 °F
HARDNESS (ACCORDING TO MOHS)	≥ 6	

Chemical analysis

Glass Beads are made of soda lime glass; CAS-Nr. 65997-17-3 / EINECS 266-046-0

NAME	METHOD	WEIGHT (reference values)	CAS-Nr.	EINECS
SILICON DIOXIDE (SiO ₂)	DIN 51001	65.0 – 75.0 %	7631-86-9	231-545-4
SODIUM OXIDE (Na ₂ O)	DIN 51001	12.0 – 17.0 %	1313-59-3	215-208-9
CALCIUM OXIDE (CaO)	DIN 51001	< 10.0 %	1305-78-8	215-138-9
ALUMINUM OXIDE (Al ₂ O ₃)	DIN 51001	< 5.0 %	1344-28-1	215-691-6
MAGNESIUM OXIDE (MgO)	DIN 51001	< 5.0 %	1309-48-4	215-171-9

FREE OF SILANES / GLYCOL / EPOXY

Silanes, Glycol, and Epoxy are not used during the production and packaging process.

Conformity

RoHS / EU DIRECTIVE 2011/65/EC

- The heavy metal content of Glass Beads keeps the permitted limits of RoHS.

NAME	QUANTITY
LEAD	< 1'000 ppm
CADMIUM	< 100 ppm
CHROME VI	< 1'000 ppm
MERCURY	< 1'000 ppm

ASSESSMENT ACCORDING TO FOOD LEGISLATION

- The tested Glass Beads are a consumer good in the sense of §2 Abs. 6 No. 1 German Code for Food Stuff (LFGB), Commodities and Feeding Stuff. Therefore, they have to comply with the legal requirements.

MICROBIOLOGICAL REQUIREMENTS

- The production of the Glass Beads fulfill the micro biological requirements according ISO 14698-1 and VDI 6022.

NSF/ANSI/CAN 61

- Complies with NSF/ANSI/CAN 61 for quality and purity.

HAZARD ANALYSIS AND CRITICAL CONTROL POINTS (HACCP)

- The production of the Glass Beads is certified according to HACCP-Standard for Glass Beads in contact with food stuffs.

ISO 9001:2015

- The production of the Glass Beads is certified according ISO 9001:2015.

Additional information

DISPOSAL	<ul style="list-style-type: none">• Disposal must be in accordance with the appropriate local regulations.• If possible, recycling is preferred to disposal or incineration.
SAFETY ADVICE	High risk of slipping due to spillage of the product.
PRODUCT INFORMATION	<ul style="list-style-type: none">• Presentation boxes available – contact the local Ovivo entity.
SUPPLIER	Ovivo Switzerland AG Benkenstrasse 262 4108 Witterswil Switzerland

