



TECHNICAL DATA SHEET

GLASS BEADS

GENERAL DATA

GLASS BEADS

APPLICATION	High performance filter media for single and multi-layer filtration at water treatment systems.
MATERIAL	<p>Polished glass beads made of soda lime glass.</p> <ul style="list-style-type: none">• Hydrolytic resistance on Glass Beads: HGB 1 (based on ISO 720)• Acidic resistance on Glass Beads: S1 (according DIN 12116)• Alkaline resistance on Glass Beads: A1 (according ISO 695)
INSTALLATION	<ul style="list-style-type: none">• Glass Beads replace natural sand and gravel in filter beds. They 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 packing 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">• Store in a cool dry area protected from direct sunlight and from high temperature deviations.• Keep the product in its original packaging until use.
COLOUR	Transparent
SURFACE	Polished
SPECIFIC WEIGHT	2.50 kg/l



OVIVO®

Worldwide Experts in Water Treatment

STANDARD SIZES

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

*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 (LITTLETON 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 or Epoxy are not used during the production and packaging process.				

QUALITY

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	Disposal must be in accordance with the appropriate local regulations.
SAFETY ADVICE	High risk of slipping due to spillage of the product.
PRODUCT INFORMATION	Presentation boxes available –contact your local Ovivo entity.
GLOBAL KNOWLEDGE CENTRE	Ovivo Switzerland AG Benkenstrasse 262 4108 Witterswil Switzerland

