

Product Data Sheet

First created on: 2015-06-29

Updated on: 2016-07-06

Next inspection on: 2017-06-30

Printed on: 2016-07-06



Product	SiLibeads Ceramic beads Type ZCY
Material	Ceramic beads made of Zirconium Oxide / Cerium and Yttrium stabilised
Application	<ul style="list-style-type: none"> - grinding and dispersion of coating and paint systems, e.g. car paint, corrosion protection, dip paint, industrial and structural paint, wood varnishes, coil coatings - organic/inorganic pigments, e.g. titanium dioxide, ultra marine, iron oxide, etc. - grinding and dispersion of pigments to dye textiles and plastics - grinding and processing of electric ceramics, e.g. barium titanate, piezo-electric ceramics, sensors, condensers - processing of enamel - technical/mechanical components - dispersion of fungicides, herbicides, insecticides - finest grinding up to the nano particle range - grinding of minerals and precious metals
Advantages	<ul style="list-style-type: none"> - high specific weight ≥ 6.0 kg/l - low contamination of the grinding product, therefore useable for high-grade grinding of pigments and dyes - useable for all modern types of mills (vertical and horizontal) - excellent crystal structure avoids bead breakage
Technical Data	
Specific Weight	≥ 6.0 kg/l
Bulk Density	see table Standard Sizes
Youngs-Module	205 GPa
Microhardness	> 1050 HV ₁₀
Colour	brown-yellow

Standard Sizes (special sizes are available upon request)

Article No.	Size Range	Approx. Bulk Density
9505	0.40 – 0.60 mm	3.7 – 3.8 kg/l
9507	0.60 – 0.80 mm	3.7 – 3.8 kg/l
9509	0.80 – 1.00 mm	3.7 – 3.8 kg/l
9511	1.00 – 1.20 mm	3.7 – 3.8 kg/l
9513	1.20 – 1.40 mm	3.7 – 3.8 kg/l
9515	1.40 – 1.60 mm	3.7 – 3.8 kg/l
9517	1.60 – 1.80 mm	3.7 – 3.8 kg/l
9519	1.80 – 2.00 mm	3.7 – 3.8 kg/l
9521	2.00 – 2.20 mm	3.7 – 3.8 kg/l
9523	2.00 – 2.50 mm	3.7 – 3.8 kg/l
95235	2.20 – 2.50 mm	3.7 – 3.8 kg/l
95265	2.50 – 2.80 mm	3.7 – 3.8 kg/l
9530	2.80 – 3.20 mm	3.7 – 3.8 kg/l

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**Chemical Analysis; Cerium and Yttrium stabilised Zirconium Oxide beads**

Name	Method	Weight	CAS-No.	EINECS
		reference value in weight-%		
Zirconium dioxide ZrO ₂ ⁽¹⁾ + Hafnium dioxide HfO ₂ ⁽¹⁾⁽²⁾	DIN 51001	> 79,0 %	1314-23-4 12055-23-1	215-227-2 235-013-2
Cerium dioxide CeO ₂	DIN 51001	< 15,0 %	1306-38-3	215-150-4
Yttrium oxide Y ₂ O ₃	DIN 51001	< 3,0 %	1314-36-9	215-233-5
others		< 3,0 %		

⁽¹⁾ Traces of naturally occurring uranium (U) and thorium (Th) are present in concentrations of < 0.05 %.

⁽²⁾ natural origin (residue from processing of raw material Zircon sand)

Additional Information

Storage indication	Store in a dry manner in closed (original) container by room temperature.
Disposal	Please consult national laws and local regulations in force for disposal or landfill.
Safety advice	High risk of slipping due to spillage of product.
Product information	Safety Data Sheet SiLibeads Type ZCY
Manufacturer/Supplier	Sigmund Lindner GmbH; Oberwarmensteinacher Straße 38; 95485 Warmensteinach / GERMANY Phone: +49-9277-9940 Fax: +49-9277-99499 Web: www.sili.eu E-Mail: sili@sigmund-lindner.com

All data are reference values – subject to change without prior notice