

Product Data Sheet



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SiLibeads Ceramic beads Type ZC 6.1

First created on: 2019-04-11 Updated on: 2021-01-21
Next inspection on: 2021-12-31 Printed on: 2021-01-21

Version: 3/2021

Product: SiLibeads Ceramic beads Type ZC 6.1

Material: Ceramic beads made of Zirconium Oxide / Cerium stabilised

Application:

- 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:

- high specific weight 6.13 kg/dm³
- 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: 6.13 kg/dm³
Bulk Density: see table Standard Sizes
Youngs-Module: 205 GPa
Microhardness: > 1050 HV₁₀
Colour: yellow

Standard Sizes (special sizes are available upon request):

Article No.	Size Range	Approx. Bulk Density
98035	0.30 – 0.40 mm	3.66 kg/dm ³
98045	0.40 – 0.50 mm	3.67 kg/dm ³
9805	0.40 – 0.60 mm	3.68 kg/dm ³
9807	0.60 – 0.80 mm	3.69 kg/dm ³
9809	0.80 – 1.00 mm	3.71 kg/dm ³
9810	0.90 – 1.10 mm	3.75 kg/dm ³
9811	1.00 – 1.20 mm	3.75 kg/dm ³
9812	1.10 – 1.30 mm	3.79 kg/dm ³
9813	1.20 – 1.40 mm	3.82 kg/dm ³
9815	1.40 – 1.60 mm	3.84 kg/dm ³
9817	1.60 – 1.80 mm	3.80 kg/dm ³
9819	1.80 – 2.00 mm	3.80 kg/dm ³
9821	2.00 – 2.20 mm	3.81 kg/dm ³
98235	2.20 – 2.50 mm	3.83 kg/dm ³

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Chemical Analysis; Cerium stabilised Zirconium Oxide beads

Name	Method	Weight	CAS-No.	EINECS
Zirconium oxide Yttrium stabilised ⁽¹⁾	DIN 51001	≥83 %	64417-98-7	264-885-7
Cerium dioxide	DIN 51001	≤14 %	1306-38-3	215-150-4
others		≤3 %		

⁽¹⁾ Solid solution phase, consisting of: Zirconium dioxide ZrO_2 + Hafnium dioxide HfO_2 ⁽²⁾: 82 %; Yttrium oxide Y_2O_3 : 1.50 %
Analysis according to DIN 51001.

⁽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 ZC 6.1

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