# Product Data Sheet

The German spirit of quality since 1854

SiLi® SIGMUND LINDNER

## SiLibeads Ceramic beads Type Z

First created on: 2015-06-29 Updated on: 2018-07-18
Next inspection on: 2019-06-30 Printed on: 2018-07-18 Version: V16/2018

**Product:** SiLibeads Ceramic beads Type Z

**Material:** Ceramic beads made of Zirconium Silicate

**Application:** SiLibeads Type Z are made of fused Zirconium Silicate.

Colour and Paint Industry:
- grinding and dispersion of coating and paint systems in the middle viscosity range in most of water based systems
- grinding and dispersion of pigments to dye textiles and plastics
- grinding of inorganic and organic pigments

Plant Protection:
- dispersion of fungicides, herbicides, insecticides

Filler material- and the Coating Industry:
- process of whitener ($CaCO_3$) for the paper production
- grinding of coatings for video and audio tapes

Surface Processing:
- micro beads for shot blasting/shot peening of components made of metal, glass and rubber

**Technical Data:**

| | |
|---|---|
| Specific Weight: | 3.8 kg/l |
| Bulk density: | see table Standard Sizes |
| Youngs-Module: | 100 GPa |
| Microhardness: | 700 $HV_{10}$ |
| Colour: | white |

**Standard Sizes** (special diameters by request):

| Article | Diameter | Bulk density |
|---|---|---|
| 94002 | 0 – 63 µm | --- |
| 94003 | 63 – 125 µm | --- |
| 94005 | 125 – 250 µm | --- |
| 94007 | 250 – 425 µm | --- |
| 94008 | 425 – 600 µm | --- |
| 9403 | 0.20 – 0.40 mm | 2.18 kg/l |
| 9405 | 0.40 – 0.60 mm | 2.18 kg/l |
| 9407 | 0.60 – 0.80 mm | 2.19 kg/l |
| 9409 | 0.80 – 1.00 mm | 2.20 kg/l |
| 9411 | 1.00 – 1.20 mm | 2.21 kg/l |
| 9413 | 1.20 – 1.40 mm | 2.22 kg/l |
| 9415 | 1.40 – 1.60 mm | 2.23 kg/l |

**Chemical Analysis;** Beads made of Zirconium Silicate:

| Name | Method | Weight | CAS-No. | EINECS |
|---|---|---|---|---|
| | | reference value in Weight-% | | |
| Zirconium dioxide $ZrO_2$[(1)] + Hafnium dioxide $HfO_2$[(1)(2)] | DIN 51001 | 67.50 % | 1314-23-4<br>12055-23-1 | 215-227-2<br>235-013-2 |
| Silicon dioxide $SiO_2$ [(1)(3)] | DIN 51001 | 27.50 % | 7631-86-9 | 231-545-4 |
| others | | 5.00 % | | |

(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)
(3) Silica glass, free from crystalline forms of silica

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### 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: | Sample card SiLibeads Ceramic Beads,<br>Safety Data Sheet SiLibeads Type Z; Test Reports |

### Manufacturer/Supplier:

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