

Type ZY Zirconia, Yttrium stabilised Technical Data



Chemical Composition weight-%	
ZrO ₂ + HfO ₂	94,6 %
Y ₂ O ₃	5,3 %
Fe ₂ O ₃	0,01 %
K ₂ O	0,01 %
Na ₂ O	0,01 %

Figures are reference values !

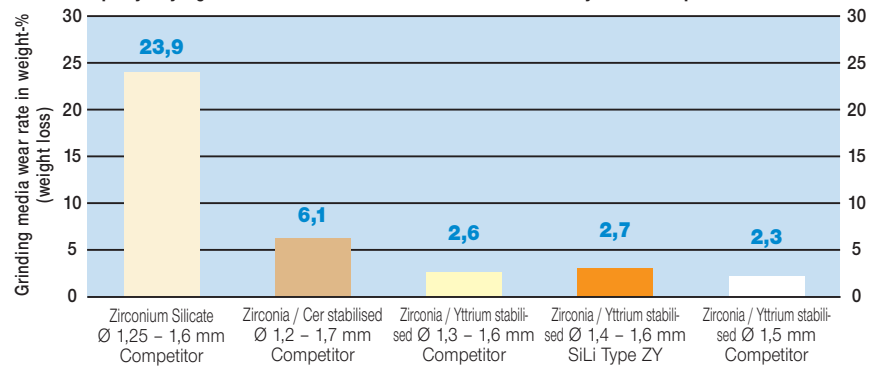
Mechanical Properties	
Specific weight	6,0 kg / ltr.
Youngs-module	210 GPa
Hardness according to Mohs	≥ 8
Microhardness	1150 HV
Roundness (ratio of axis)	≥ 95 %

Wear Rate of the SiLibeads Type ZY in comparison with other grinding media

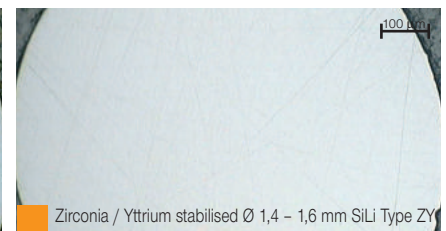
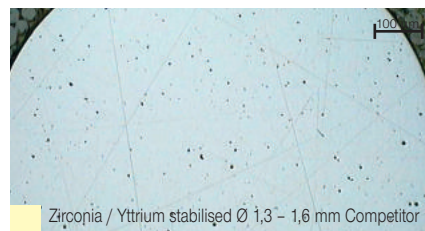
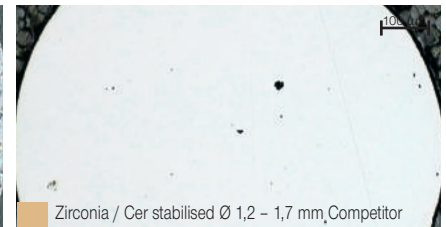
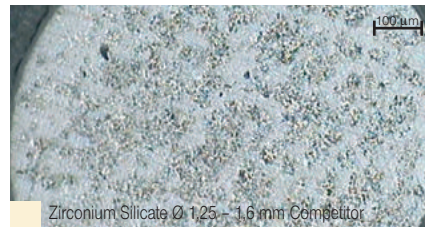
Test conditions: Drais Mill PML-H/V with chrome steel discs 1.571, attritor speed 13,4 m/sec

Suspension: 1 kg Titanium Dioxide # 3025 and 4 ltr. water, milling time 9 hours, filling volume of grinding beads 720 ml

Caution: Laboratory tests under water conditions and low solid content or low viscosity, high-performance grinding media show partly very high wear and tear. Therefore we advice to do laboratory tests under practical conditions.



The inner structure of the SiLibeads Type ZY in comparison 100 x magnification



Available Standard Qualities

Art. No.	Size Range (mm)	Bulk Density (kg / ltr.)	Number of beads per kg
96025	0,2 - 0,3	3,823	20.371.833
9603	0,2 - 0,4	3,820	11.789.255
96035	0,3 - 0,4	3,818	7.424.137
9605	0,4 - 0,6	3,817	2.546.479
9607	0,6 - 0,8	3,772	928.017
9609	0,8 - 1,0	3,722	436.639
9611	1,0 - 1,2	3,715	239.151
9613	1,2 - 1,4	3,585	144.884
9615	1,4 - 1,6	3,535	94.314
9617	1,6 - 1,8	3,521	64.789
9619	1,8 - 2,0	3,518	46.408
9623	2,0 - 2,5	3,510	27.945
9629	2,6 - 3,3	3,500	11.789

Special sizes and beads Ø > 4,0 mm or Ø < 0,2 mm are available upon request. Figures of Bulk Density are reference values !