



PANGEA INTERNATIONAL

CERAMIC MICRO GRINDING MEDIA

[HOME](#)>>[PRODUCT INFO](#)>>[ZIRCONIA-BASED BEADS ZAL32](#)

[NEXT >> ZIRCONIA-BASED BEADS SZS](#)

ZIRCONIA-BASED BEADS

ZAL32

NEW



Composition (wt%)	ZrO ₂ +HfO ₂	25.0
	Al ₂ O ₃	30.0
	SiO ₂	40.0
	Remainder	<5.0
Specific density (can be adjusted on request)		≥3.2g/cm ³
Bulk density (can be adjusted on request)		≥1.9g/cm ³
Mohs' hardness		7.0
Hardness (HV)		8.2 GPa
Fracture toughness, K _{IC}		2.26 MPa*m ^{1/2}
Roudness		≥95%
Open porosity		0%
Colour		white
Surface finish		silky sheen

Standard Size Range (mm): (Other sizes on request)

Φ0.4-0.6; Φ0.6-0.8; Φ0.8-1.2; Φ1.4-1.7; Φ1.5-2.0; Φ2.0-2.5; Φ2.5-3.0.....Φ10.0-12.0

Properties:

- Outstanding wear resistance. Through many comparison tests, it proves that the wear rate of ZAL32 is 1/8~1/15 of some low unit cost alumina media and reach the same level of electro-fused zirconium silicate beads (specific density of 3.8 g/cm³), while having better crushing strength.
- Ideal density improves the grinding efficiency. Adjustable density enables the beads to suit various types of bead mills.
- Economic price.
- Using this inert grinding media produces clean mineral surfaces that improves flotation and leach recoveries compared to grinding with conventional steel media.

Applications:

- Mining, Calcium Carbonate, Titanium Dioxide, Minerals...

The combination of low consumption rate, high grinding efficiency and low unit cost enables our new ZAL ceramic micro beads to be an ideal grinding media for high energy & efficient stirred mills applicable for large scale commercial mining applications.

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