

Updated on 17/05/2017

Product name	Sintered Ceramic Beads, Zirconia Alumina Composite		
Product type	ZAL-32 / ZAL-27		
Features	- Light density media with unique formulation, patented.		
	- Superior price-performance ratio to other low-medium density medias.		
	- Substitutes glass beads.		
	- Increase milling efficiency due to higher density of the medias.		
	- Reduce the mill wear.		
	- Successfully being used in large stirred mills (IsaMill™ and Metso SMD) for mining industry.		
Main applications	ZAL-32 / ZAL-27 beads can be used in milling and dispersion of following materials:		
	- Coatings (paints, inks)		
	- Pigments and dyes		
	- Mineral fillers e.g. TiO₂ , GCC , Zircon and Kaolin		
	- Gold, silver, platinum, lead, copper and zinc sulfide		
Technical data*	ZAL-32	ZAL-27	
Specific density	$3.2 \pm 0.05 \text{ g/cm}^3$	$2.7 \pm 0.05 \text{ g/cm}^3$	
Bulk density	2.2 kg/l	1.7 kg/l	
Hardness	872 HV	761 HV	
Color	White	White	

^{*}typical values

Standard sizes (mm)*					
0.4 - 0.8	1.5 – 2.0	4.0 – 4.5			
0.8 – 1.2	2.0 – 2.5	4.5 – 5.5			
1.2 – 1.4	2.5 – 3.0	5.0 – 6.0			
1.4 – 1.7	3.0 – 4.0	6.0 – 7.0			

^{*}other sizes can be customized

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supplier	Manufacturing plant: Guangfu Industrial park, Suzhou	
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Composition	Weight*	CAS No.	
Zirconium dioxide ZrO ₂ +	2 – 20 %	1314-23-4	
Hafnium dioxide HfO ₂		12055-23-1	
Silicon oxide SiO ₂	35 %	7631-86-9	
Aluminum oxide Al ₂ O ₃	40 – 60 %	1344-28-1	
Others	3 - 5 %		
*typical values			
Hazards identification	Health rating: 0 – None		
	Flammability rating: 0 – None		
	Reactivity rating: 0 – None		
	Contact rating: 0 – Slight		
	Possible irritation through abrasive friction.		
	Risk of slipping if the product (beads) is spread out on the floor.		
	As such, the product should not cause an inhalation problem but its		
	utilization can create dust.		
First aid measures	Eyes: may be abrasive through friction, treat as particle in eye.		
, ,		losive. It is compatible with all standard	
	fire-fighting methods.	·	
Accidental release measures	Isolate the area and sweep the floor in order to collect the beads to avoid the		
	slipping by rolling.		
	Wear eye protectors and dust mask.		
Handling and storage	• • •	ate dust, wear dust mask. Wear eye	
	protectors.		
	Heavy material, respect the security rules in case of stocking. Use safety shoes		
	for handling.	Ç ,	
Physical / Chemical Properties	Appearance and odor: odorless white beads		
	Solubility in water: insoluble		
	Volatiles by volume at 21℃: 0%		
	Boiling point: NAIF		
	Melting point: over 1600°C		
Disposal consideration		ery or recycling should be managed in	
·		ty. Dispose of packaging and unused	
	contents in accordance with governm		
Transport information	Not regulated		
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