Product Data Sheet **Type: ZAL-32 / ZAL-27**

Updated on 15/09/2026

CHEMCO

Product name	Ceramic Beads, Zirconia Alumina Composite, Sintered	
Product type	ZAL-32 / ZAL-27	
Features	- Light density medias with unique formulations, patented - Superior price-performance ratio to other low-medium density grinding medias - Substitute glass beads very well by reducing media & mill wear and increasing grinding efficiency - Dry Electropolishing. An emerging surface treatment technology that uses solid media containing electrolytes—such as ceramic or polymer beads—to replace traditional liquid electrolytes, thereby achieving an environmentally friendly and safe polishing effect.	
Main applications	ZAL-32 / ZAL-27 beads can be used in milling and dispersion of following materials, just name a few: - Coatings (paints, inks) - Pigments and dyes - Mineral fillers e.g. TiO_2 , GCC , Zircon and Kaolin - Gold, silver, platinum, lead, copper and zinc sulfide ZAL beads can also be used as electrolyte beads in dry electropolishing. Designed for cobalt-chromium, stainless steel, titanium, and hard metals, and are also compatible with Inconel, copper alloys, carbon steel, nitinol, tool steel, and tungsten carbide.	
Technical data*	ZAL-32	ZAL-27
Specific density	3.15 – 3.30 g/cm^3	2.65 – 2.88 g/cm^3
Bulk density	2.2 kg/l	1.7 kg/l
Hardness	854 (HV10)	793 (HV10)
Mohs' Hardness	8	8
Color	White (glossy sheen)	White (glossy sheen)

*typical values

Standard sizes (Ø,mm) *		
0.4 – 0.8	0.8 – 1.2	1.2 – 1.5
1.4 – 1.7	1.8 – 2.2	2.0 – 2.5
2.5 – 3.0	3.0 – 4.0	4.0 – 5.0
5.0 – 6.0		

*other sizes can be customized

Manufacturer/ supplier	Chemco Advance Material (Suzhou) Co., Ltd Guangfu Industrial Park, Fengshan Road, Suzhou, 215159, CHINA Phone: +86 186 1680 9761 Email: info@chemcobeads.com Website: www.chemcobeads.com

Composition	Weight*	CAS No.
Zirconium dioxide ZrO_2 + Hafnium dioxide HfO_2	2 – 20 %	1314-23-4 12055-23-1
Silicon oxide SiO_2	35 %	7631-86-9
Aluminum oxide Al_2O_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.
Fire fighting measures	This product is not combustible or explosive. 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	In case of operations, which generate dust, wear dust mask. Wear eye protectors. Heavy material, respect the security rules in case of stocking. Use safety shoes for handling.
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℃
Disposal consideration	Whatever cannot be saved for recovery or recycling should be managed in an appropriate waste disposal facility. Dispose of packaging and unused contents in accordance with governmental and local requirements.
Transport information	Not regulated
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