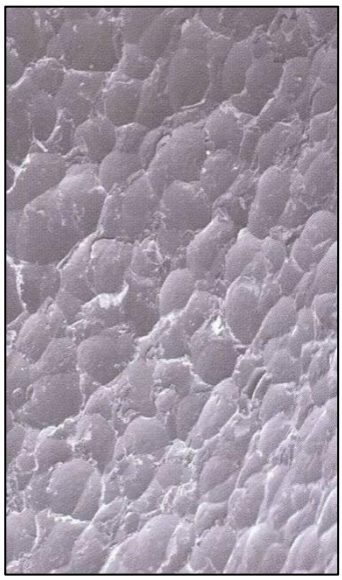
Zirshot



Saint-Gobain Zirshot® is the industrial reference media for ceramic shot peening, enhancing the fatigue resistance of mechanical parts made of metallic alloys such as hard steel, titanium and aluminium. In shot forming, Zirshot also is used to shape and straighten slim hard alloys for aerospace structural components.

Zirshot combines the high hardness (700HV) and toughness of ceramic materials with optimal spherical bead shape and tight size distribution, resulting in outstanding peening benefits:

- High energy transfer at the impact point on the metallic substrate
- Preservation of the integrity of the peened surface with a smooth and uniform surface finish

Because the quality of peening media is a critical parameter that directly impacts the service life of treated components, ZirPro manufactures shot peening media using tightly controlled procedures and specifications, enabling Zirshot to conform to the most stringent aerospace and automotive ceramic shot peening standards.

Peening with Zirshot ceramic shots offers:

- High level of compressive stress near the surface
- Smooth surface finish that minimizes crack initiation
- Very low material abrasion that maintains accuracy of fine geometries
- High rebound that allows homogeneous coverage of intricate geometries
- Very low levels of particle embedment
- No need for decontamination post-treatments for non-ferrous alloys
- Cost savings on the downstream processes (coating, polishing)

Zirshot				
Chemical Composition (wt%)	ZrO_2	SiO_2	AlO_2	
	60 - 70	28 - 33	<10	
Specific Gravity (g/cm³)	3.8			
Bulk Density (kg/L)	2.3			
Vickers Hardness (HV1)	700			
Available Sizes	**Name**	**µm**	**Name**	**µm**
	Z850	850 - 1180	Z210	210 - 300
	Z600	600 - 850	Z150	150 - 210
	Z425	425 - 600	Z100	100 - 150
	Z300	300 - 425		