

✦ CY3Z GRADES ARE HIGH PERFORMANCE YTTRIA-DOPED ZIRCONIA POWDERS

CY3Z grades are 3 mol% yttria-stabilized zirconia powders made by chemical process. Their high purities (>99.9%) and the tight control of the physical characteristics enable the manufacturing high performance zirconia ceramic parts.

Two grades of CY3Z with different specific surface area are available:

- CY3Z-RS grade (SSA of 7m²/g) for ceramic parts made by injection molding, additive manufacturing or casting.
- CY3Z-MS grade with (SSA of 15m²/g) for the manufacturing of small size ceramic parts with fine microstructure by injection molding or additive manufacturing.

CY3Z grades are also available with 0.25wt% alumina (CY3Z-RA, CY3Z-MA) for improved reactivity.

✦ TYPICAL PARTICLE SIZE & SPECIFIC SURFACE AREA

	Particle size ^a (µm)		Specific Surface Area ^b (m ² /g)	Ceramic part features
	D50	D90		
CY3Z-MA	0.2	<1.0	15	Fine ceramic microstructure High hydrothermal resistance
CY3Z-MS				
CY3Z-RA	0.4	<1.0	7	Easy-to-process High mechanical performance
CY3Z-RS				

^a : Laser diffraction - ^b : B.E.T. measurement

⚙️ MAIN APPLICATIONS

- Technical ceramics : optical fiber connectors, plungers, valves, bearings, grinding media, biomedical



Structural ceramic parts



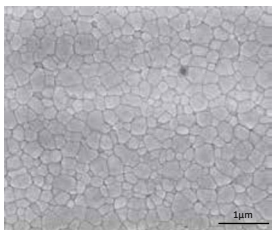
Optical fiber connectors

🔬 CHEMICAL ANALYSIS

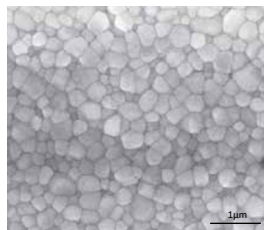
	Chemistry (wt%) ^a						L.O.I. ^b (wt%)
	Al ₂ O ₃	Y ₂ O ₃	SiO ₂	Na ₂ O	TiO ₂	Fe ₂ O ₃	
CY3Z-MA	0.25±0.05	5.40±0.20	<0.02	<0.02	<0.005	<0.005	<1.0
CY3Z-MS	<0.02						
CY3Z-RA	0.25±0.05						
CY3Z-RS	<0.02						

^a : I.C.P. - ^b : Loss weight from 20°C to 1000°C

🔍 CY3Z-M AND CY3Z-R GRADES ALLOW TO OBTAIN FINE MICROSTRUCTURE



Ceramic part based on CY3Z-MA



Ceramic part based on CY3Z-RA

📦 PACKAGING

- 25kg plastic pail

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