

✦ CZE POWDERS ARE CHEMICALLY PROCESSED FINE ZIRCONIA GRADES COMBINING HIGH REACTIVITY AND PURITY

CZE grades are made by precipitation of zirconium oxychloride followed by a precise calcination and milling enabling an accurate control of the final powder reactivity.

Three grades of CZE with specific surface areas ranging from 6 to 25 m²/g are commercially available. Other specific surface areas and particle size are achievable on request (typical batch size: 500kg).

✦ TYPICAL PARTICLE SIZE & SPECIFIC SURFACE AREA

	Particle size ^a (µm)			Specific Surface Area ^b (m ² /g)
	D10	D50	D90	
CZE-S1	0.1	0.5	<2.0	4 – 8
CZE-M1	0.1	0.5	<2.0	14 – 18
CZE-G1	0.1	0.7	<3.0	23 – 27

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

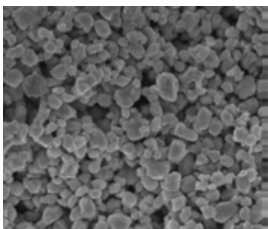
✦ TYPICAL CHEMICAL ANALYSIS

	Chemistry ^a (ppm)						L.O.I ^c (wt%)
	SiO ₂	Na ₂ O	Al ₂ O ₃	TiO ₂	Fe ₂ O ₃	Cl ^b	
CZE-S1	<200	<200	<100	<50	<50	<100	<0.5
CZE-M1	<200	<300	<100	<50	<50	<300	<1.5
CZE-G1							

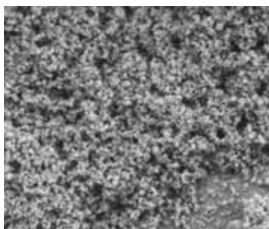
^a : I.C.P. - ^b : Titration method - ^c : Loss weight from 105°C to 1000°C

✦ CZE POWDERS ARE MADE OF FINELY DISPERSED ZIRCONIA OF TAILORED CRYSTAL SIZE

CZE-S1



CZE-G1



✦ PACKAGING

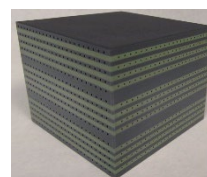
- 25kg cardboard box

✦ MAIN APPLICATIONS

- Fillers in composites (membranes, particulate filled polymer)
- Electronic ceramics: lead zirconate titanate (PZT), multilayer ceramic capacitors (MLCC), oxygen sensors, fuel cells, oxygen transport membranes
- Structural ceramics by co-milling with:
 - Yttrium oxide to manufacture yttria-stabilized zirconia
 - Magnesium oxide to manufacture white magnesia-stabilized zirconia
- Dopant for Li-battery material
- Foundry filters



Foundry filter



Solid Oxide Fuel Cell

SEPR – SAINT-GOBAIN ZIRPRO
 B.P. 60025 - Batiment L
 539, route de Sorgues
 84131 Le Pontet Cedex - France
 zirpro@saint-gobain.com
 Tél : +33 4 90 32 70 02
 www.zirpro.com