CF zirconia

TECHNICAL DATA SHEET

12/2020

CF POWDERS EXHIBIT HIGHER REACTIVITY THAN CC GRADES THANKS TO FINER DENDRITIC MORPHOLOGIES

CF grades are thermal zirconia powders produced by the fusion of zirconium silicate using plasma arc followed by chemical treatments.
The plasma technology enables achieving the highest reactivity among all thermal zirconia grades regardless of the particle size.

CF zirconia offers high specific surface area typically around 6 m^2/g and particle size ranging from 7.0 to 1.0 µm.

Soft agglomerates around 95µm are also available on demand for specific applications.

TYPICAL PARTICLE SIZE & SPECIFIC SURFACE AREA

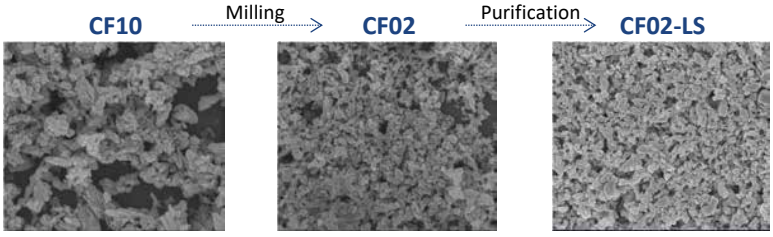
	Particle size[a] (µm)			Specific Surface Area[b] (m^2/g)
	D10	D50	D90	
CF10	0.8	7.0	35.0	4.5 – 7.5
CF02	0.5	1.0	5.5	
CF02-LS	0.5	1.0	13.0	

TYPICAL CHEMICAL ANALYSIS

	Chemistry[a] (wt%)						L.O.I[b] (wt%)
	SiO_2	Na_2O	Al_2O_3	TiO_2	Fe_2O_3	CaO	
CF10 **CF02**	0.40	0.05	0.05	0.05	0.04	0.04	0.20
CF02-LS	0.10	0.05	0.05	0.05	0.03	0.03	0.20

[a] : X.R.F. - [b] : Loss weight from 105°C to 1000°C

CF GRADES FINE AND UNIFORM MICROSTRUCTURE IS CONSERVED AFTER MILLING



PACKAGING

- 25kg moisture proof paper bags
- 500kg, 1MT big-bags

MAIN APPLICATIONS

CF10 / CF02:
- Thermal barrier coatings
- Magnesia-stabilized zirconia ceramics, a ceramic composed of CF powders exhibits a yellow color
- Pigments for ceramic tiles decoration
- Refractory parts (bricks, ...)
- Stone polishing

CF02-LS:
- Material for electronics (PZT, MLCC)
- Magnesia-stabilized zirconia ceramics (Mg-PSZ)

Thermal barrier coatings

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