

CERPASS® MGE

CERPASS® MGE, the original seeded gel product, is the most durable ceramic micro abrasive grain available. The unique nano-structure of the grains, composed of extremely uniform, sub-micron crystals, is designed to fracture conchoidally when stressed. The combination of grain shape and microstructure creates an aggressive cutting but long-lasting ceramic grain.

Applications: Because of its durability and ability to maintain an aggressive cutting edge, CERPASS® MGE performs superbly in Coated Abrasive and Bonded Abrasive applications.

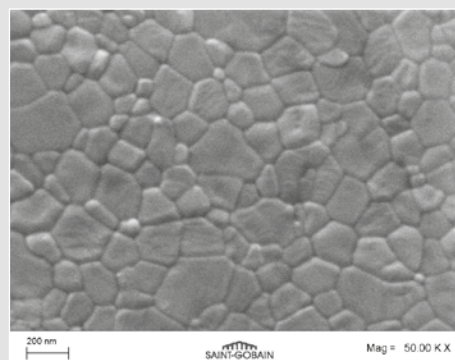
Physical Properties: (Typical)

Compound	Alpha Aluminum Oxide	Hardness (GPa)^A	21.60
Color	White Translucent to Off-White/ Opaque	Density (g/cm³)^B	3.91
Shape	Sharp	Crystal Size (µm)^C	0.17

A: by Vickers Diamond Indent Method B: by Helium Pycnometry
C: by Uncorrected Intercept Method of SEM Photographs

Chemical Properties: (Typical)

Predominant Chemical Composition		Al ₂ O ₃ ≥ 99.6 %	
Trace Chemical Composition			
Constituent	Typical PPM	Constituent	Typical PPM
TiO ₂	< 2,000	CaO	< 100
SiO ₂	< 700	Fe ₂ O ₃	< 200
Na ₂ O	< 100	MgO	< 150



CERPASS® Crystal Structure

Available sizes: M-Sizing Standard

CerpPASS® Code 0755	Approximate Fepa Sizes	Microns			
		d0%	d3%	d50%	d95%(target)
M45	F240/P320	94.0	66.8	44.7-47.7	34.0
M40	P360	87.0	60.3	39.0-42.0	30.0
M36	F280/P400	81.0	53.9	33.5-36.5	25.0
M30	F320/P500	77.0	48.3	28.7-31.7	22.0
M26	P600	70.0	43.0	24.8-26.8	18.0
M23	F360/P800	72.0	38.1	20.8-22.8	15.0
M17	F400/P1000	42.0	29.0	16.0-18.5	11.0
M13	F500/P1500	34.0	24.0	12.5-14.0	8
M8	F600/P2500	26.0	18.0	7.5-9.0	5
M6	F800	25.0	14.0	5.0-7.5	2
M4	F1000	24.0	10.0	3.7-4.3	1

The values listed above are based on Coulter Multisizer particle size analysis

Available sizes: P240 and P280

CerpPASS Code 0570	Control Screen	Over-size	First	Second	Third Nominal	Control Screen	Loose Pack Density	
	Coarse Grain		Nominal	Nominal		Fines Grain	(LPD) [g/cm³]	
	Test Sieve 1		Test Sieve 2	Test Sieve 3		Test Sieve 3 & 4	Through Test Sieve 5	Low
P240	+140/0	+200/(0-2)	+200+230/(10-20)	+200+230+270/(30-55)	+200+230+270+325/(75+)	-325/(0-25)	1.50	1.70
P280	+170/(0)	+230/(0-2)	+230+270/(10-20)	+230+270+325/(30-55)	+230+270+325+400/(75+)	-400/(0-25)	1.45	1.65

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CGN2016-08-01
SG-SGP-09_E01

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