

MILLED ZIRCON CHEMISTRY

	Calcined Premium Flour	Calcined Standard Flour	Australian Uncalcined Flour
*ZrO ₂ % Zirconium Oxide	65.0 Min.	65.0 Min.	65.0 Min.
SiO ₂ % Silicon Dioxide	32.5 Typ.	32.5 Typ.	32.5 Typ.
TiO ₂ % Titanium Dioxide	0.25 Max.	0.35 Max.	0.25 Max.
Fe ₂ O ₂ % Iron Oxide	0.045 Max.	0.054 Max.	0.15 Max.
Al ₂ O ₃ % Aluminum Oxide	0.90 Max.	2.0 Max.	1.0 Max.
U & Th Uranium & Thorium	450 Max.	475 Max.	475 Max.
P ₂ O ₅ % Diphosphorus Pentoxide	0.09% Typ.	0.09% Typ.	0.09% Typ.

**Includes 1-4% Hafnium Oxide*

TYPICAL ANALYSIS Micromeritics Saturn DigiSizer 5200

200 Coarse		200 Mesh		325 Mesh	
Mean	35.37	Mean	27.45	Mean	18.39
Median	28.83	Median	21.95	Median	15.44
10% Finer	2.524	10% Finer	2.045	10% Finer	1.481
50% Finer	28.83	50% Finer	21.95	50% Finer	15.44
90% Finer	78.09	90% Finer	60.36	90% Finer	38.46
Low Diameter	Cumulative Vol.	Low Diameter	Cumulative Vol.	Low Diameter	Cumulative Vol.
(µm)	Finer (%)	(µm)	Finer	(µm)	Finer
352.000	100.0	352.000	100.0	352.000	100.0
248.900	100.0	248.900	100.0	248.900	100.0
176.000	100.0	176.000	100.0	176.000	100.0
124.500	99.1	124.500	100.0	124.500	100.0
88.000	92.9	88.000	97.6	88.000	99.9
62.230	82.5	62.230	90.8	62.230	98.7
44.000	67.7	44.000	78.5	44.000	94.0
31.110	53.0	31.110	63.5	31.110	81.5
22.000	40.9	22.000	50.1	22.000	65.2
15.560	31.9	15.560	39.2	15.560	50.3
11.000	24.7	11.000	30.3	11.000	37.9
7.778	19.5	7.778	23.6	7.778	28.7
5.550	15.9	5.550	18.8	5.550	22.6
3.889	12.9	3.889	15.0	3.889	17.9
2.750	10.5	2.750	12.1	2.750	14.6
1.945	8.5	1.945	9.7	1.945	11.8
1.375	6.9	1.375	7.7	1.375	9.6

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MILLED ZIRCON PRODUCT SHEET (cont.)

TYPICAL ANALYSIS (CONT.) Micromeritics Saturn DigiSizer 5200

200 Coarse		200 Mesh		325 Mesh	
0.972	5.4	0.972	5.9	0.972	7.5
0.688	4.2	0.688	4.4	0.688	5.6
0.486	2.8	0.486	3.2	0.486	4.2
0.344	1.8	0.344	1.8	0.344	2.7
0.243	1.1	0.243	0.6	0.243	1.5
0.172	0.6	0.172	0.1	0.172	0.6

TYPICAL ANALYSIS Micromeritics Saturn DigiSizer 5200

400 Mesh		600 Mesh	
Mean	14.65	Mean	11.01
Median	12.63	Median	9.017
10% Finer	1.136	10% Finer	0.758
50% Finer	12.63	50% Finer	9.017
90% Finer	31.43	90% Finer	24.12
Low Diameter	Cumulative Vol.	Low Diameter	Cumulative Vol.
(µm)	Finer (%)	(µm)	Finer (%)
352.000	100.0	352.000	100.0
248.900	100.0	248.900	100.0
176.000	100.0	176.000	100.0
124.500	100.0	124.500	100.0
88.000	100.0	88.000	100.0
62.230	100.0	62.230	100.0
44.000	98.9	44.000	99.3
31.110	89.6	31.110	95.8
22.000	74.8	22.000	87.2
15.560	59.0	15.560	73.4
11.000	44.6	11.000	57.9
7.778	34.0	7.778	44.9
5.550	26.8	5.550	35.7
3.889	21.2	3.889	28.3
2.750	17.2	2.750	22.8
1.945	14.0	1.945	18.5
1.375	11.3	1.375	15.0
0.972	8.9	0.972	12.0
0.688	6.7	0.688	9.3
0.486	5.0	0.486	6.8
0.344	3.3	0.344	4.8
0.243	1.8	0.243	3.0
0.172	0.8	0.172	1.6

TYPICAL PHYSICAL PROPERTIES

Melting Point	Greater than 4000°
Coefficient of Thermal Expansion	4.2 x 10 ⁻⁶ cm/cm/°C
Hardness	7.5 Moh's Scale