



## ZIRCON FLOUR - 62% Zr

RESIDUE TEST						
300MESH	500MESH	800MESH	Zn	U	Th	U+Th
NIL	NIL	NIL	<55 ppm	<220 ppm	<117 ppm	<337 ppm

CHEMICAL TEST					
ZrO <sub>2</sub>	HfO <sub>2</sub>	SiO <sub>2</sub>	Fe <sub>2</sub> O <sub>3</sub>	TiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>
63.954	1.199	32.968	0.086	0.193	0.375
STANDARD					
64.324	1.233	32.731	0.104	0.189	0.442

ZIRCON TEST	L	a	b
PACKED BATCH	93.44	1.36	6.22
STANDARD	93.19	1.26	6.50
			DELTA E=0.388

WHITE GLAZE TEST	L	a	b
PACKED BATCH	82.14	0.68	0.83
STANDARD	82.20	0.92	1.10
			DELTA E=0.366

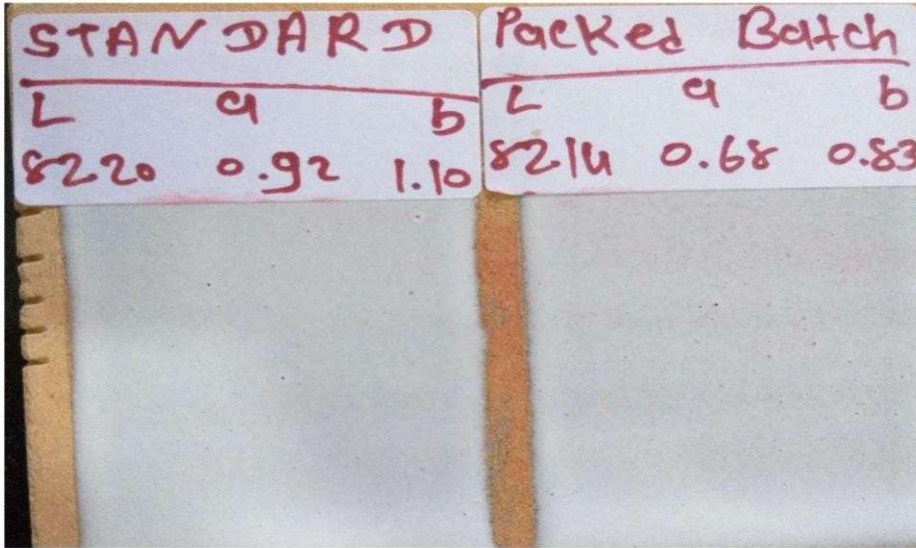
PARTICLE REPORT							
	D-50	D-90	D-97	%OF PARTICLES BELOW			
				10MIC.	5MIC.	2MIC.	1MIC.
PACKED BATCH	5.22	16.2	23.2	73.82	48.62	25.09	11.73
STANDARD	4.91	17.4	26.0	73.14	52.19	29.01	12.35
Grain Size	S.G.	Size mm	Moisture (%)	Density g/cm <sup>3</sup>	L whiteness	Hardness	PH
d50 – 5.00 μ	4.5	0.001 mm	0.65%	0.8	82.14	7.5 on the MOHs scale	> 7



*Handwritten signature*



WhiteGlazeStripTestandLabValues1080°C



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# OPAQUE

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NAVRATNA CORPORATE PARK  
Office no. 207 & 208 "A" Block  
Opp. Dishman corporate house  
iscon ambali bopal road  
ambali, ahmedabad, 380058



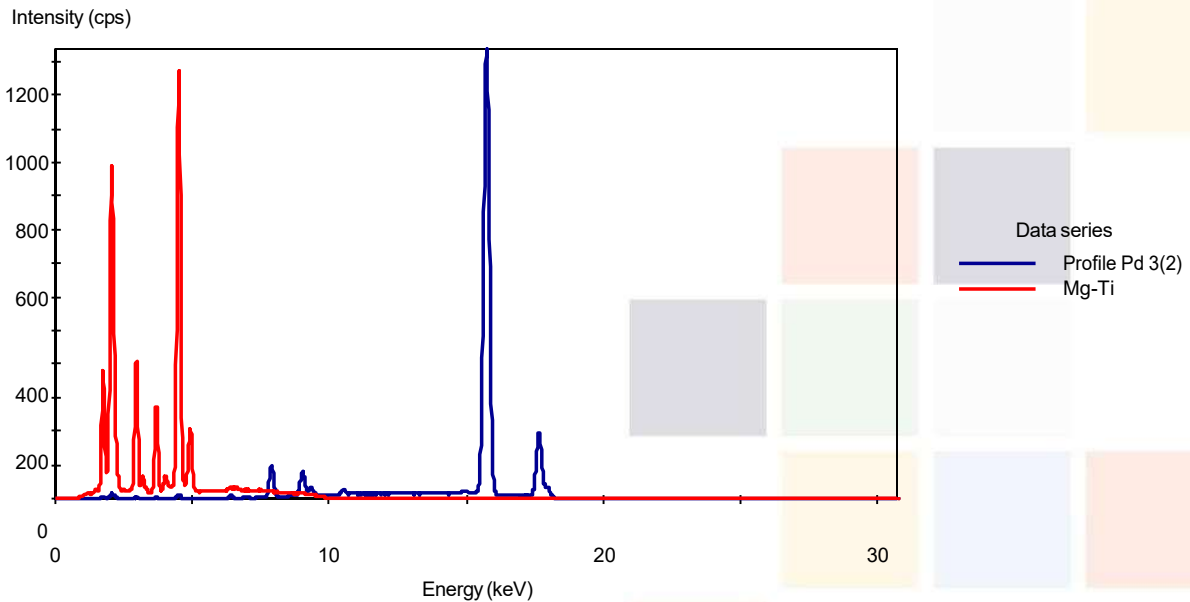
OPERATOR: INSTRUMENT  
OPERATOR

Analysis Method: OPAQUE 2021

Analyte Concentration Table

Element	Line	Concentration
ZrO2	Ka	63.954 Wt %
HfO2	La	1.199 Wt %
SiO2	K	32.968 Wt %
Fe2O3	Ka	0.086 Wt %
TiO2	Ka	0.193 Wt %
Al2O3	Ka	0.375 Wt %

Spectra for all conditions



RADIOACTIVITY	
U	283 PPM
TH	116 PPM
U + TH	399 PPM



*Arind*

**OPAQUE**

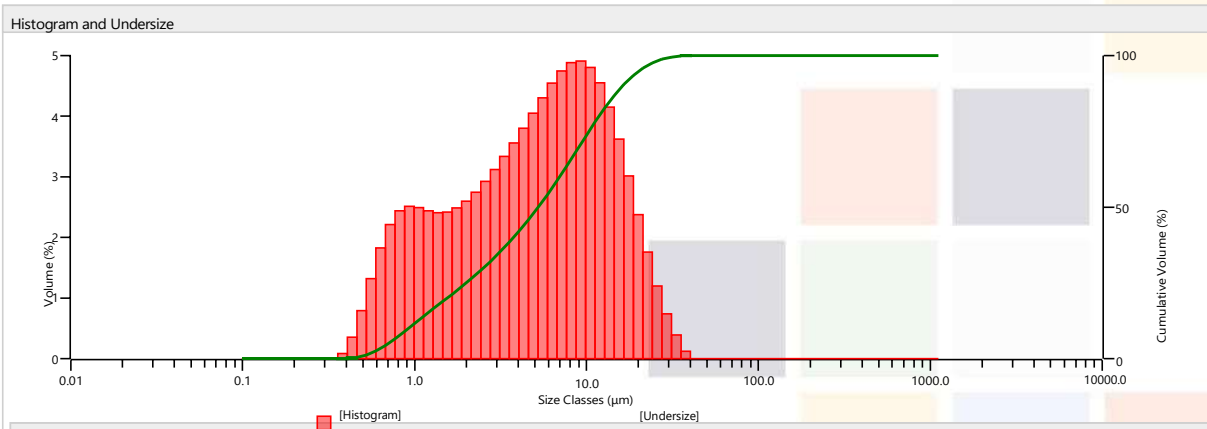
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# OPAQUE CERAMICS PVT. LTD.

Analysis	Result
<b>Particle Name</b> ZIRCOPAQUE FLOUR <b>Particle Refractive Index</b> 1.930 <b>Particle Absorption Index</b> 0.100 <b>Dispersant Name</b> Water <b>Dispersant Refractive Index</b> 1.330 <b>Scattering Model</b> Mie <b>Analysis Model</b> General Purpose <b>Weighted Residual</b> 0.46 % <b>Laser Obscuration</b> 7.13 % <b>Ultrasonication Duration (SOP)</b> 10.00 s	<b>Specific Surface Area</b> 2357 m <sup>2</sup> /kg <b>D [3,2]</b> 2.55 μm <b>D [4,3]</b> 7.12 μm <b>Dv (10)</b> 0.916 μm <b>Dv (50)</b> 5.22 μm <b>Dv (90)</b> 16.2 μm <b>Dv (97)</b> 23.2 μm <b>Volume Below (1) μm</b> 11.73 % <b>Volume Below (2) μm</b> 25.09 % <b>Volume Below (5) μm</b> 48.62 % <b>Volume Below (10) μm</b> 73.82 %



Result		Result		Result		Result		Result		Result	
Size (μm)	%Volume In	Size (μm)	%Volume In	Size (μm)	%Volume In	Size (μm)	%Volume In	Size (μm)	%Volume In	Size (μm)	%Volume In
0.0995	0.00	0.405	0.35	1.65	2.48	6.72	4.75	27.4	0.74	454	0.00
0.113	0.00	0.461	0.79	1.88	2.60	7.64	4.88	31.1	0.39	516	0.00
0.128	0.00	0.523	1.32	2.13	2.75	8.68	4.91	35.3	0.12	586	0.00
0.146	0.00	0.594	1.82	2.42	2.92	9.86	4.80	40.1	0.00	666	0.00
0.166	0.00	0.675	2.21	2.75	3.12	11.2	4.55	45.6	0.00	756	0.00
0.188	0.00	0.767	2.44	3.12	3.33	12.7	4.15	51.8	0.00	859	0.00
0.214	0.00	0.872	2.51	3.55	3.56	14.5	3.62	58.9	0.00	976	0.00
0.243	0.00	0.991	2.49	4.03	3.80	16.4	3.01	66.9	0.00	1110	0.00
0.276	0.00	1.13	2.44	4.58	4.05	18.7	2.37	76.0	0.00		
0.314	0.00	1.28	2.40	5.21	4.30	21.2	1.76	86.4	0.00		
0.357	0.09	1.45	2.42	5.92	4.54	24.1	1.20	98.1	0.00		

**OPAQUE**  
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