



ZIRCOPAQUE 5 MICRON 5PS GRADE - 60% 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 ₂	HfO ₂	SiO ₂	Fe ₂ O ₃	TiO ₂	Al ₂ O ₃
60.315	1.179	35.584	0.082	0.156	1.126
STANDARD					
59.652	1.151	36.329	0.112	0.215	1.663

WHITE GLAZE TEST	L	a	b
PACKED BATCH	87.67	1.65	0.47
STANDARD	87.83	1.65	0.54
			DELTA E=0.175

WHITE GLAZE TEST	L	a	b
PACKED BATCH	47.72	0.35	4.79
STANDARD	47.90	0.17	4.59
			DELTA E=0.324

PARTICLE REPORT							
	D-50	D-90	D-97	%OF PARTICLES BELOW			
				10MIC.	5MIC.	2MIC.	1MIC.
PACKED BATCH	1.21	3.06	4.14	100	99.08	73.92	40.26
STANDARD	1.28	3.48	4.78	100	98.01	72.85	37.98
Grain Size	S.G.	Size mm	Moisture (%)	Density g/cm ³	L whiteness	Hardness	PH
d50 - 1.1 μ	4.5	0.001 mm	0.70%	0.8	87.67	7.5 on the MOHs scale	> 7

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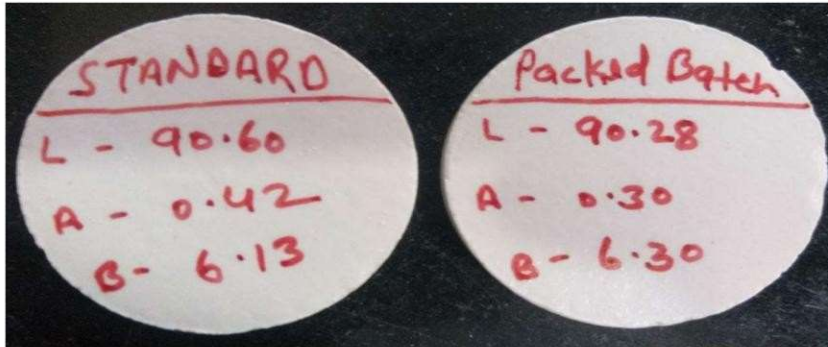
NAVRATNA CORPORATE PARK
Office no. 207 & 208 "A" Block
Opp. Dishman corporate house
iscon ambali bopal road
ambali, ahmedabad, 380058



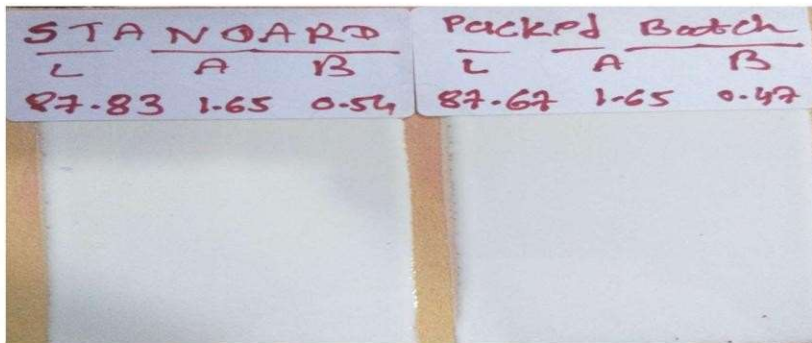
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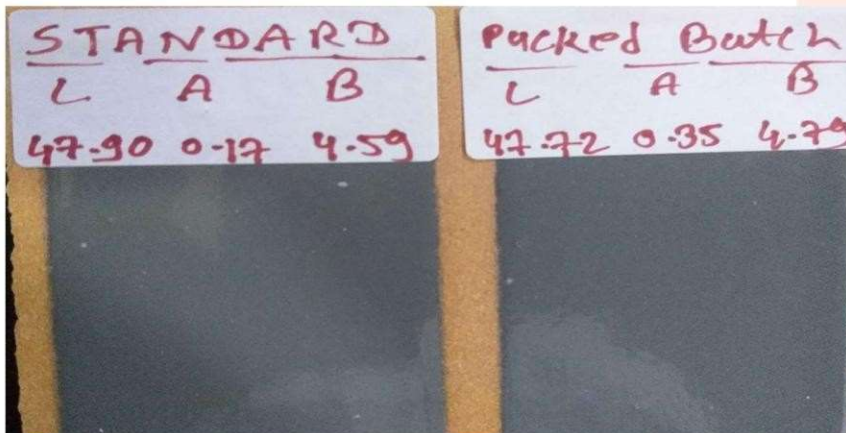
BODY Button Test & Lab Values 1200°C



White Glaze Strip Test and Lab Values 1080°C



Black Glaze Strip Test and Lab Values 1080°C



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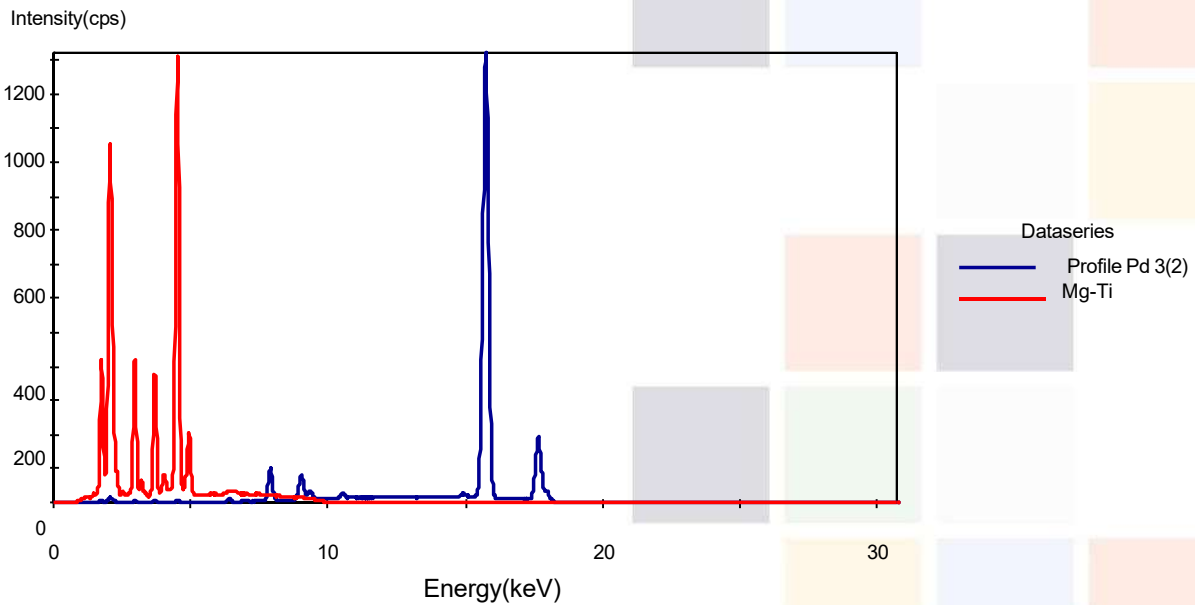
OPERATOR: INSTRUMENT
OPERATOR

Analysis Method: OPAQUE 2021

Analyte Concentration Table

Element	Line	Concentration
ZrO2	Ka	60.315 Wt %
HfO2	La	1.179 Wt %
SiO2	K	35.584 Wt %
Fe2O3	Ka	0.082 Wt %
TiO2	Ka	0.156 Wt %
Al2O3	Ka	0.126 Wt %

Spectra for all conditions



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



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OPAQUE CERAMICS PVT. LTD.

Analysis	Result
Particle Name ZIRCOPAUE (5 MICRON) Particle Refractive Index 1.930 Particle Absorption Index 0.100 Dispersant Name Water Dispersant Refractive Index 1.330 Scattering Model Mie Analysis Model General Purpose Weighted Residual 0.74 % Laser Obscuration 9.94 % Ultrasonication Duration (SOP) 1.00 s	Specific Surface Area 5801 m ² /kg D [3,2] 1.03 μm D [4,3] 1.54 μm Dv (10) 0.548 μm Dv (50) 1.21 μm Dv (90) 3.06 μm Dv (97) 4.14 μm Volume Below (1) μm 40.26 % Volume Below (2) μm 73.92 % Volume Below (5) μm 99.08 % Volume Below (10) μm 100.00 %



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	2.49	1.65	5.84	6.72	0.00	27.4	0.00	111	0.00
0.113	0.00	0.461	3.81	1.88	5.57	7.64	0.00	31.1	0.00	127	0.00
0.128	0.00	0.523	5.06	2.13	5.21	8.68	0.00	35.3	0.00	144	0.00
0.146	0.00	0.594	6.04	2.42	4.73	9.86	0.00	40.1	0.00	163	0.00
0.166	0.00	0.675	6.67	2.75	4.10	11.2	0.00	45.6	0.00	186	0.00
0.188	0.00	0.767	6.93	3.12	3.36	12.7	0.00	51.8	0.00	211	0.00
0.214	0.00	0.872	6.91	3.55	2.55	14.5	0.00	58.9	0.00	240	0.00
0.243	0.00	0.991	6.73	4.03	1.74	16.4	0.00	66.9	0.00	272	0.00
0.276	0.06	1.13	6.48	4.58	1.02	18.7	0.00	76.0	0.00	310	0.00
0.314	0.47	1.28	6.25	5.21	0.47	21.2	0.00	86.4	0.00	352	0.00
0.357	1.31	1.45	6.05	5.92	0.13	24.1	0.00	98.1	0.00	400	0.00

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