



OPAQUE
CERAMICS
OBSESSED WITH QUALITY

LABORATORY TEST REPORT



1 MICRON S

TECHNICAL SPECIFICATIONS & TEST REPORT

High purity zircon based opacifier designed for superior opacity, whiteness and consistent glaze performance in ceramic applications.

CHEMICAL ANALYSIS (%)

PARAMETER	STANDARD	BATCH
ZrO ₂	63.87 (±0.50%)	63.81
HfO ₂	1.21 (±0.50%)	1.21
SiO ₂	31.57 (±0.50%)	31.62
Fe ₂ O ₃	0.06 (±0.01%)	0.05
TiO ₂	0.24 (±0.03%)	0.25
Al ₂ O ₃	1.58 (±0.20%)	1.59

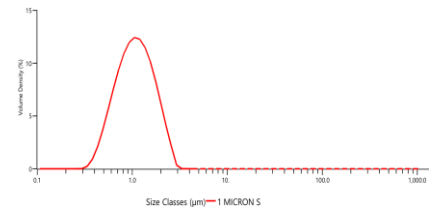
PROPERTIES

RADIOACTIVITY	RESULT/ACTIVITY
Thorium (232Th parent)	0,46 Bq/g(±2,5%)
Uranium (238U parent)	2,95 Bq/g(±2,5%)
Total (232Th + 238U)	3,42 Bq/g(±2,5%)
Thorium (Th)	114,00 ppm
Uranium(U)	237,00 ppm
SPECIFIC GRAVITY	4,60 g/cm3
LOSS ON IGNITION	1,00% max.

PARTICLE SIZE SUMMARY

PARAMETER		STANDARD	BATCH	
D-50 (µm)		1.23	1.18	
D-90 (µm)		2.41	2.41	
D-97 (µm)		3.10	3.14	
% OF PARTICLE BELOW				
	1 µm	2 µm	5 µm	10 µm
STANDARD	35.26	81.47	100.00	100.00
BATCH	38.85	81.94	99.98	100.00

PARTICLE SIZE DISTRIBUTION



PERFORMANCE TEST RESULTS

ZIRCON TEST (1200°C)

TYPE	L	a	b	ΔE
1 MICRON P STANDARD	97.88	0.18	2.82	0.289
1 MICRON P BATCH	98.10	0.10	2.65	

WHITE GLAZE TEST (1150°C)

TYPE	L	a	b	ΔE
1 MICRON P STANDARD	88.66	-0.05	-2.77	0.223
1 MICRON P BATCH	88.84	-0.03	-2.64	

BLACK GLAZE TEST (1150°C) / BODY BUTTON TEST (1200°C)

TYPE	L	a	b	ΔE
1 MICRON P STANDARD	47.44	-0.81	-6.70	0.325
1 MICRON P BATCH	47.34	-0.66	-6.43	

LAB DISPOSITION

LAB MANAGER APPROVAL



QUALITY YOU CAN TRUST.
PERFORMANCE YOU CAN SEE.



APPROVED



R.K. Singh

MR. R.K. SINGH
AUTHORIZED SIGNATORY



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