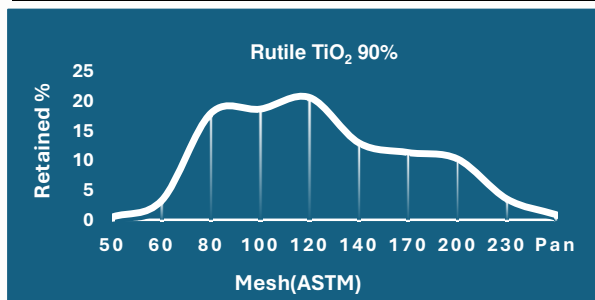


RUTILE 90% TiO₂



Particle Size Analysis* ¹			
Mesh	MM	Guaranteed (%)	Retained (%)
50	0.300	< 1	0.48
60	0.250	0 ~ 8	3.28
80	0.180	10 ~ 25	18.02
100	0.150	10 ~ 30	18.68
120	0.125	15 ~ 25	20.62
140	0.106	5 ~ 20	12.96
170	0.090	5 ~ 20	11.36
200	0.075	5 ~ 15	10.26
230	0.063	0 ~ 5	3.50
Pan		< 3	0.84



Mineralogical Report* ⁵		
Minerals	Guaranteed (%)	Typical (%)
Titanium Bearing Minerals	97.00 Min	97.77
Zircon	02.50 Max	01.98
Others	00.50 Max	00.25

Chemical Content* ²		
Elements	Guaranteed %	Typical (%)
TiO ₂	90.00 Min	90.69
Fe ₂ O ₃	4.00 Max	3.451
SiO ₂	1.50 Max	1.329
ZrO ₂ +HfO ₂	2.00 Max	1.831
Al ₂ O ₃	0.80 Max	0.681
V ₂ O ₅	0.80 Max	0.661
P*	0.050 Max	0.031
P ₂ O ₅	0.100 Max	0.068
S*	0.020 Max	0.014
SO ₃	0.040 Max	0.034
CaO	0.040 Max	0.026
MgO	0.020 Max	0.008
Nb ₂ O ₅	0.300 Max	0.169
U(ppm)	100 Max	44
Th (ppm)	200 Max	160

Physical Parameters		
Parameters	Guaranteed	Typical
LOI @ 1000°C* ⁶	0.50 % Max	0.42 %
H ₂ O @ 110°C* ⁷	0.50 % Max	0.15 %
Radioactivity	1200 Bq/kg Max	939 Bq/kg
Specific gravity	4.2 ~ 4.5	4.3
Bulk Density	2.5 to 2.7 t/m ³	2.53 t/m ³
Colour	Brown/Black	Black
Structure	Tetragonal	Tetragonal
Hardness	6 to 6.5 mohs scale	6.5 mohs scale

1. Particle Size determined by the method of ASTM C136

2. Chemical assay tested by X Ray Florescence Spectrometry (Epsilon 1 / Axios Max). Instrument calibrated with standard samples and tested by Bureau Veritas.

3. * Element Phosphorus (P) calculated from the Compound P₂O₅ by its molecular mass

4. * Element Sulphur (S) calculated from the

5. Mineral purity determined by Grain counting.

6. Loss on ignition (LOI @1000°C) determined gravimetrically.

7. Moisture content (H₂O) determined by the method of ASTM C566/ISO 11127-5.

8. This material is naturally occurring and some variations in grain size and/or chemical analyses can be expected. Other guarantees for specific elements are subject to discussion for individual contracts.

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