

Application

Natural Rutile Sand has the following applications:

1. Used as a Feed Stock in the Titanium Metal manufacturing.
2. Used as a key ingredient in Pigment Industry.
3. Manufacture of Welding Electrodes as a chief ingredient in Welding Flux.



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puRuTile™

Natural Rutile Sand (95% TiO₂)



The Purity Advantage

puRuTile™

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puRuTile™ is an established brand from the house of V.V. Mineral, India's Largest exporter of Heavy Minerals. VV Mineral is the world's second largest producer of Garnet and India's first private producer of Ilmenite.

VV Mineral has fully integrated Exploration, Mining, Mineral Benefication & Logistics operations that provide the world's most sought after Heavy Minerals. VV Mineral has an installed capacity to process 3 million Tonnes of ore per annum.

VV Mineral has developed puRuTile™ as an extension of the mineral benefication process from the Beach and Inland sands mined. puRuTile™ is not a by-product but a product from a dedicated plant that beneficiates Zircon & Natural Rutile Sand from the residual sand after processing for garnet and ilmenite.

The process is also state-of-the-art, that uses an electric kiln for the first time in India to provide an 100% pure Rutile Sand.

The most distinguishing factor of puRuTile™ is the high TiO₂ content found only in specific mining areas which are controlled by VV Mineral.

Advantages of puRuTile™

- **High Slag Formation**
(Due to High TiO₂ content)
- **Low spattering**
(Due to finer & more even grain size)
- **Low silica, sulphur & Phosphor levels**

Chemical Analysis

Elements	Guaranteed	Typical
TiO ₂	95% Min	96.3
SO ₃	0.02% Max	0.002
ZrO ₂	1.5% Max	0.95
P ₂ O ₅	0.02% Max	0.008
SiO ₂	1% Max	0.65
Fe ₂ O ₃	1% Max	0.31

Typical Size analysis of puRuTile™

Mesh	MM	Retained % Range
30	0.600	Nil
40	0.425	Less than 1%
50	0.300	2 ~ 4%
60	0.250	3 ~ 8%
70	0.212	8 ~ 15%
80	0.180	20 ~ 30%
100	0.150	25 ~ 35%
120	0.125	20 ~ 30%
140	0.106	8 ~ 15%
-140	- 0.106	Less than 5%

Typical Mineralogy of puRuTile™

Mineral	Typical
Rutile	97.88%
Zircon	1.5%
Free Quartz	0.03%
Leucoxene	0.53%