

# Hi-Ti (Leucoxene 88%)

## Thunderbird Project



### Hi-Ti (Leucoxene 88%)

The Thunderbird deposit will also produce a Hi-Ti (Leucoxene 88%) product suitable for a variety of applications. Potential applications for the Hi-Ti 88 are:

- Welding electrode applications (flux cored wire welding)
- Production of titanium sponge via the molten salt chlorination process
- As a potential blended feedstock for chloride TiO<sub>2</sub> process (D<sub>50</sub> 67µm)

### Hi-Ti (Leucoxene 88%) Key Characteristics

The Hi-Ti (Leucoxene 88%) product represents a new source of leucoxene with some unique characteristics:

- High TiO<sub>2</sub> content (87.5% TiO<sub>2</sub>)
- Fine to medium grained (D<sub>50</sub> 67µm)
- Suitable for titanium sponge manufacture via molten salt chlorination
- Moderately low P and S levels
- Low in key contaminants Cr<sub>2</sub>O<sub>3</sub>, CaO and MgO

Composition	Units	Typical	Range	
			Low	High
TiO <sub>2</sub>	%	87.8	86	88
Fe <sub>2</sub> O <sub>3</sub>	%	2.9	2.5	3.5
SiO <sub>2</sub>	%	3.4	3.0	3.5
Al <sub>2</sub> O <sub>3</sub>	%	0.5	0.4	0.6
Cr <sub>2</sub> O <sub>3</sub>	%	0.07	0.06	0.09
MgO	%	0.04	0.02	0.05
MnO	%	0.09	0.08	0.14
ZrO <sub>2</sub> +HfO <sub>2</sub>	%	3.2	2.0	3.8
P	%	0.07	0.04	0.09
U XRF	ppm	96	50	120
Th XRF	ppm	308	200	340
V <sub>2</sub> O <sub>5</sub>	%	0.24	0.2	0.3
Nb <sub>2</sub> O <sub>5</sub>	%	0.43	0.40	0.48
CaO	%	0.04	0.03	0.05
SO <sub>3</sub>	%	0.06	0.04	0.08
K <sub>2</sub> O	%	0.02	0.01	0.03
CeO <sub>2</sub>	%	0.05	0.03	0.08
SnO <sub>2</sub>	%	0.11	0.05	0.15
As	%	0.001	<0.01	0.003

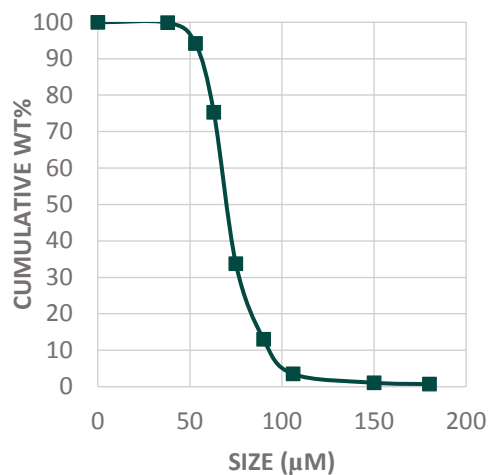


Table 1. Hi-Ti (Leucoxene 88%) product specifications and grain size.

### Contact

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