

ILMENITE CONCENTRATE (VOLNOGORSK)

Other names: Ilmenite sand, Ilmenite
 CAS number: 1317-80-2
 Formula: $Fe_2O_3 \cdot TiO_2$
 Technical Condition of Ukraine TU-U 14-10-005-98
 Harmonize Commodity Code 2614001000

Chemical analysis

Contents, %	STANDARD	LOW	Al ₂ O ₃ LOW	Cr ₂ O ₃
TiO ₂ , min	63	63	63	
Al ₂ O ₃ , max	3	1,5	3	
SiO ₂ , max	2	1,4	2	
Cr ₂ O ₃ , max	None	None	0,4	
Moisture, max		0,5	0,5	0,5
Mesh Residue №04, max		0,4	0,4	0,4

Physical description and properties

Appearance: Usually black, free running sand. Grain shape: impressed spherical. Grain color: from light brown up to black.

Minerals	Contents, %
Ilmenite:	90-96
Rutile/ Leucoxene:	0,5-4
Zircon:	0,1-0,5
Monazite:	<0,2
Staurolite:	0,5 - 4,0
Kyanite:	0,05 - 0,3
Turmaline:	0,05 - 0,2
Chromes pinelite:	1,5-3,0

Storage: in closed containers or bags, protect from physical damage. Terms of storage unlimited.

Melting point: ~1365°C
 Specific Gravity: 4120 - 4170 kg/m³
 Bulk density: 2130 - 2240 kg/m³
 Grain size: 63 -160 mkm
 Flammable: Nonflammable
 Solubility in Water: Insoluble
 Angle of friction: 32
 Hardness: 5

Sieve Aperture (microns)	Cumulative retained, %
212	Traces
150	10
106	64
75	99
-75	100

End use: Ilmenite concentrate is used in production of synthetic rutile, pigment titanium dioxide, welding electrodes, titanium sponge, metal titanium and in steelmaking furnaces.

Shipment:

Bulk in railway cars or vessel holds;
 50 kg bags;
 Soft containers (big bag) 1 t net.