



Ilmenite

Industrial Grade

Chemical Name: Iron titanium oxide

Chemical Formula: FeTiO_3

Molecular Weight: 151.71 g/mol

Density: 4.7 g/cm³

Specific Gravity: 4.5-5.0

Appearance: Black to dark brown

Properties

Ilmenite is known for its black to dark brown colour and metallic lustre. It crystallises in the trigonal system. Comprising titanium dioxide (TiO_2) and iron oxide (FeO), it is dense, weakly magnetic, and commonly found in igneous, metamorphic, or placer deposits.

Usage

Ilmenite, a titanium-iron oxide mineral (FeTiO_3), is primarily used to produce titanium dioxide (TiO_2), a key white pigment in paints, plastics, paper, and cosmetics. It is also essential for titanium metal production, valued for its strength, lightness, and corrosion resistance in aerospace, medical implants, and engineering.

Additionally, ilmenite is used in welding rod coatings, steelmaking flux, and ceramics and glass manufacturing, making it vital for industrial and consumer products.

Packing

1.5MT big bags in bulk, loose in containers/bulk.

Chemical Analysis

Alumina (as Al_2O_3)	0.20 ~ 1.50 %	Chloride Content	10 ~ 400 ppm
Iron (as Fe_2O_3)	10 ~ 27 %	Soluble salts	Less than 500 ppm
Iron (as FeO)	15 ~ 37 %	Ph of aqueous medium	6.93
Silica (as SiO_2)	0.30 ~ 2.30 %	Gypsum content	Nil
Magnesium (as MgO)	0.20 ~ 0.99 %	Moisture content	Less than 0.50 %
Calcium (as CaO)	0.04 ~ 0.110 %	Carbonate Content	Traces
Titanium as (TiO_2)	46 ~ 57 %	Loss on ignition	Nil
Phosphorus as (P_2O_5)	0.012 ~ 0.050 %	Metal content (Specifically free iron, free copper and other heavy metals)	Traces
Lead (as Pb)	10 ~ 120 ppm		
Manganese (as MnO)	0.37 ~ 0.99 %		
Zircon (as ZrO_2)	0 ~ 0.006		