



TECHNICAL DATA SHEET (TDS) – HEMATITE (Fe₂O₃)

Product Description

Hematite is a high density iron oxide used as a weighting agent in drilling fluids. Due to its high specific gravity, it enables higher mud weight with lower solids content and improves drilling performance.

SPECIFICATION TABLE

Parameter	Test Method	Unit	Specification
Appearance	Visual	—	Red to dark brown powder
Chemical Formula	—	—	Fe ₂ O ₃
Fe ₂ O ₃ Content	XRF	%	≥ 95
Specific Gravity	API	g/cm ³	≥ 4.70
Bulk Density	ASTM	g/cm ³	1.7 – 2.2
Particle Size (<75 µm / 200 mesh)	Sieve	%	≥ 98
Particle Size (<45 µm / 325 mesh)	Sieve	%	≥ 85
Residue on 200 Mesh	Wet Screen	%	≤ 2
Residue on 325 Mesh	Wet Screen	%	≤ 12
Water Soluble Solids	ASTM	%	≤ 0.05
Alkaline Earth Metals (as Ca)	ICP	ppm	≤ 120
Magnetic Content	—	%	≤ 5
Moisture Content	ASTM	%	≤ 1

PHYSICAL PROPERTIES

Property	Value	Unit	Note
Color	Red / Black	—	—
Solubility	Insoluble	—	In water
pH	Neutral	—	—
Hardness	5 – 6	Mohs	—
Density	~5.0	g/cm ³	High density

PACKING

Type	Weight
Jumbo Bag	1 – 1.5 MT
Paper Bag	25 KG