

IRON OXIDE

GENERAL DESCRIPTION & APPLICATIONS

Ferric oxide (a type of IRON OXIDE) is a reddish-brown to black powder that occurs naturally as the mineral hematite. It can be produced synthetically by igniting virtually any ferrous compound in air. Ferric oxide is the basis of a series of pigments ranging from yellow to a red known as Venetian red. The finely powdered red form is used for polishing precious metals and diamonds, as well as in cosmetics. Ferric oxide forms a number of hydrates with variable structures and compositions. A common form is iron rust, produced by the combined action of moisture, carbon dioxide, and oxygen in the air on metallic iron. Synthetic iron oxide pigments are one of the most popular color pigments worldwide for coloring concrete.

PHYSICAL PROPERTY & DESCRIPTION	CAS NO.	STRUCTURE
Description : Odorless, Red-brown To Black Crystalline Powder Melting Point : 1,565 Vapor Pressure : 1 MmHg @ 20 Specific Gravity : 4.2-5.24 Water Solubility : < 0.1% Volatility : 0% pH : 4.0 8.0 Solvent Solubility : Soluble In Warm Hydrochloric Acid, Slightly Soluble in Sulfuric Acid.	1309-37-1	
	SYNONYM	
	FERRIC OXIDE	
	MOL Wt.	
	159.69	

PRECAUTION IN HANDLING

Observe all federal, state and local regulations when storing this substance. Store in a tightlyclosed container. Store away from incompatible substances. Keep in a tightly closed container, stored in a cool, dry, ventilated area.

APPLICATION

In coating, printing ink, paint, also as coloring agent for building material, rubber, paper-making. In producing ferrites Also used in recording tapes and pyrotechnics

SPECIFICATION

PROPERTY	UNIT	RED	YELLOW	BLACK
Fe ₂ O ₃	wt% min	95.0	86	-
Fe ₃ O ₄	wt% min	-	-	95
Moisture	wt% max	1.0	1.0	1.5
pH Value	-	5 - 7	3.5 - 7	5 - 7
Oil Absorption	g/100g	15 -25	25 - 35	15 - 25
Water Soluble	wt% max	0.3	0.5	0.5
Tinting Strength	%	100 ± 5	100 ± 5	100 ± 5
Sieve Residue (325mesh)	wt% max	0.3	0.5	0.3

COMMENTS