

VENATOR

Technical Data Sheet

Black Iron Oxides

Venator Synthetic Black Iron Oxides are precipitated magnetite (Fe_3O_4). Typically, the ferrous content is approximately 24% expressed as FeO. They yield deep black masstone color and rich bluish black tints, have excellent hiding power, and are low in heavy metals content.

Wetting, dispersion and suspension properties are excellent. Particle size is uniform with an average diameter of approximately 0.3 microns.

The excellent color, tint, and high hiding of these products suggest use in paints for metal furniture, fire escapes, gray tinting, and house trim. Other uses include printing inks, concrete products and flooring, where permanent, easy-wetting black pigments are desirable.

For critical applications, Venator high hegman BK-5099D will meet the most exacting requirements. BK-5099D is designed to yield a 6 Hegman grind on high speed dispersers.

TYPICAL PROPERTIES (Data Below Apply To All Black Grades)

Formula	Fe_3O_4
Particle Shape	Cubic
Hegman (D grade only)	6
+325 Mesh Retention, %	0.02
pH	8
Specific Resistance, Ω	5000
Specific Gravity	5.0
Refractive Index Number	2.42

	% PURITY (as Fe_3O_4)	AVERAGE PARTICLE Size (μ)	SPECIFIC SURFACE AREA (m^2/g)	OIL ABSORPTIO N ($\text{g}/100\text{g}$)	TAPPED DENSITY (g/cc)	% WATER SOLUBLE SALTS	% H_2O
BK-4799T	97	0.30	7.0	17	0.90	0.20	0.50
BK-5000T	97		7.0	17	0.90	0.20	0.50
BK-5099	98	0.35	6.0	22	0.90	0.10	0.15
BK-5099D	98	--	6.0	22	1.00	0.10	0.20
BK-5599	98	0.30	7.0	22	1.00	0.10	0.15