



Mangano Manganic Oxide (Mn₃O₄)

Commercial Trade Name: MM12

Physical Properties

S.G.	4.7
Specific Surface Area BET (m ² /g)	11 - 14
Flow properties (Funnel diameter) (mm)	20
Bulk Density (g/cm ³)	0.6 - 0.8
Compaction Density @ 98 MPa (g/cm ³)	1.1
Median Particle size (Malvern wet)(μm)	1.3 - 1.8

Chemical Composition		Minimum	Maximum
Mn	%	71	72
SiO ₂	%		0.01
H ₂ O	%		1
CaO	%		0.005
MgO	%		0.02
K ₂ O	%		0.005
Na ₂ O	%		0.005
CO ₂	%		0.1
SO ₄	%		0.15
Cr ₂ O ₃	%		0.01
Al ₂ O ₃	%		0.005
Fe ₂ O ₃	%		0.10
BaO	%		0.002
Ni	%		0.002
Cu	%		0.001
Zn	%		0.001
Co	%		0.001

Analytical results are reported as averages and in accordance with ISO 31-0

NOTE: This product is manufactured using a selenium free process

Packaging

900kg	bulk bags, bottom discharge, on pallets
900kg	bulk bags, plain bottom on pallets
25kg	paper bags on spiral-wrapped pallets