

Garnet Grain

Technical Data Sheet

Average Chemical Composition (wt. %)

SiO ₂ (as silicate)	36 %
Al ₂ O ₃	20 %
FeO	30 %
Fe ₂ O ₃	2 %
TiO ₂	2 %
MnO	1 %
CaO	2 %
MgO	6 %

Blast Grade Sizing

Cum % Retained (Typical)	Grade	
	General Purpose <u>ROM</u> (30X60)	Fine <u>80 Mesh</u>
+600.....30	0 - 2	-
+425.....40	10 - 20	0 - 15
+300.....50	50 - 75	65 - 85
+212.....70	99 - 100	95 - 100
+150.....100		

Ideal Blasting Conditions

Nozzle pressure	90+psi
Material flow	400 - 600 lb/hr (200 - 400 kg/hr)
Nozzle size	#6, #7, #8
Work Distance	18 - 24 inches (50 - 60 cm)

Mineral Composition Warranted Limit

Garnet (Almandite)	+ 98 %
Ilmenite	2.0 %
Zircon	0.2 %
Quartz	0.1 %
Others	0.25 %

Physical Characteristics

Bulk Density	150 lbs/ft ³
Specific Gravity	4.10
Hardness (Moh)	7.50
Melting Point	1,250 C
Shape of natural grains	sub-rounded to sub-angular
Reactivity	Inert

Other Characteristics

Conductivity	150 μ M/cm (very low)
Radioactivity	Non detectable above background
Moisture Absorption	Non-Hydroscopic
Total Chlorides	Less than 25 ppm
Free Iron	Less than 0.01 %
Copper	Less than 0.01 %
Other heavy metal	Less than 0.01 %

Result of solubility and environment leach testing under Federal (EPA Toxicity) and State (California Title 22) are available upon request.

GMA Garnet (ROM 30X60) is certified by the California Air Resources Board for dry unconfined blasting. GMA Garnet meets all current EPA, NOISH and OSHA chemical limits and is on the QPL for U.S. Navy specification MIL-A-22262(SH).