

GMA Garnet Group

The Natural Abrasive



Waterjet Cutting Grade Product Data Sheet

Average Chemical Composition (Typical)

SiO ₂ *	36%
Al ₂ O ₃	20%
FeO	30%
Fe ₂ O ₃	2%
TiO ₂	1%
MnO	1%
CaO	2%
MgO	6%

* Refers to SiO₂ bound within the lattice of the homogeneous garnet crystal (no free silica)

Physical Characteristics (Typical)

Bulk Density	2.3T/m ³
Specific Gravity	4.1
Hardness (moh)	7.50-8.0
Melting Point	1250°C
Shape of natural grains	sub-angular

Other Characteristics (Typical)

Conductivity	10-15ms/m (max 25ms/m)
Radioactivity	..Not detectable above background
Moisture AbsorptionNon-hygroscopic, Inert
Total Chlorides 10-15ppm (max 25ppm)
Free Iron less than 0.01%*
Copper less than 0.01%*
Other Heavy Metals less than 0.01%*
Sulphur less than 0.01%*
Lead less than 20ppm

* Generally below detectable levels.

Mineral Composition (Typical)

Garnet (Almandite)	97-98%
Ilmenite	1-3%
Zircon	0.20%
Quartz (free silica)	<0.5%
Others	0.25%

Waterjet Grade Sizings (Typical)

Grade:	50 Mesh	80 Mesh	120 Mesh
US Mesh	(Cumulative Wt% Retained)		
Microns			
30	600	0	
35	500	1	
40	425	14	0
45	355	40	2
50	300	75	18
60	250	90	40
70	212	96	70
80	180	99	90
90	150	100	97
115	125		99
150	106		100
170	90		100

Standard Packing

- * 80 x 25kg multilayer paper bags shrinkwrapped to 2 MT pallets, or
- * 80 x 25kg multilayer paper bags packed into 2 T bulk bags or
- * 2,000kg top and bottom spouted bulk bags with internal PVC liner, or



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