

## Garnet:

Garnet is a natural, chemically inert mineral, which fractures into angular, sharp, irregular pieces when under stress. Our garnet, which is mined from a hard rock deposit, is among the hardest in the world with a Mohs rating between 8.0-8.5. Garnet can be found in many different rock types around the world. The chemical composition of garnet varies, resulting in a range of hardness between 6.5 and 8.5 on the Mohs scale, where diamonds, the hardest known natural material, are a 10. We also have sea garnet, it is very clean very wonderful for waterjet cutting.

## Sea garnet

### Physical Characteristics:

Specific Gravity	3.9~4.3
Hardness (Mohs)	7.5-8.0
Bulk Density	2.4g/cm <sup>3</sup>
Chloride	≤20ppm

### Chemical Composition:

SiO <sub>2</sub>	25% ~40%
Al <sub>2</sub> O <sub>3</sub>	13%~21%
Fe <sub>2</sub> O <sub>3</sub>	5%~10%
FeO	28%~38%
MnO	0.5%-1.0%
CaO	1%-2.5%
MgO	4%-6%

## Sizes

MM	#12-20	#20-40	#30-60	#80	#120
1.180	0-20				
0.850	40-50	0-5			
0.600	30-50	25-60	0-5		
0.425	0-4	30-70	15-40	0-5	
0.300	0-2	0-25	40-80	15-35	
0.250		0-5	0-25	20-40	

### Blast Garnet Abrasives

We offer a full range of sizes for a wide variety of air blast applications.

16 Mesh Extra Coarse – 4+ mil profile. Heavy mil scale and rust removal.

36 Mesh Coarse – 3.5-4.5 mil profile. Used to remove mil scale, rust and thick coatings.

80 Mesh Fine – 1.5-2.5 mil profile. Used on new steel and aluminium for light rust or thin coatings

16/24 Blend – 3.5-5 mil profile. Used to remove heavy mil scale, rust and thick coatings.

30/40 Blend – 2.5-3.5 mil profile. Heavy coating and rust removal while maintaining profile.

30/60 Blend – 2-3.5 mil profile. New steel and coating removal with consistent profile.

### Water Jet Garnet Abrasives

Our hard rock garnet is angular with sharp edges, which makes it the right choice for water jet applications where cutting speed and surface finish are important. The hardness and consistent grain size allows you to maintain high productivity even on the toughest applications.

60 Mesh Hard Rock – Fastest cutting with uniform finish

80 Mesh Hard Rock – Most popular and highly versatile.

120 Mesh Hard Rock – High precision with outstanding edge quality.

## Specification: Rock garnet

### Typical Chemical Analysis

SiO <sub>2</sub>	34-40%
Al <sub>2</sub> O <sub>3</sub>	18-22%
MgO	4-6%
FeO + Fe <sub>2</sub> O <sub>3</sub>	28-42%
CaO	1-2%
MnO	0.5-2%
TiO <sub>2</sub>	0.5-2%

### Characteristics

Shape	Sub Angular
Specific Gravity(g/cm <sup>3</sup> )	3.9-4.1
Bulk Density(g/cm <sup>3</sup> )	1.9-2.1
Moh Hardness	7.5-8.0
Acid Solubility	Insoluble
Chloride	≤15ppm

**distribution:** Packing in 1 mt big bags or according to client's requirement.