



# Universal Minerals, Inc.

## TECHNICAL DATA & PHYSICAL CHARACTERISTICS FOR SHARPJET GARNET ABRASIVES

### Average Chemical Composition (wt %)

SiO <sub>2</sub> .....	38%
Al <sub>2</sub> O <sub>3</sub> .....	22%
Fe <sub>2</sub> O <sub>3</sub> .....	30%
TiO <sub>2</sub> .....	1%
MnO.....	1%
CaO.....	1%
MgO.....	7%

### Average Chemical Composition (wt %)

U.S. Mesh	Grade		
	30x60	80 Mesh	100 Mesh
35	5		
40	11		
50	44	9	
60	26	42	
70	11	31	5
80	3	16	50
100		2	35
120			8
140			2

### Recommended Blasting Conditions

Nozzle pressure.....90+ psi  
 Material flow .....400-600 lbs/hr  
 Nozzle size ..... #6 or larger  
 Work distance ..... 18-24 inches

UMI's Sharpjet garnet is certified by the California Air Resources Board for dry unconfined blasting. UMI's garnet meets all current EPA, NIOSH and OSHA chemical limits and is on the Qualified Products List for U.S. Navy specification MIL-A-22262B(SH).

### Mineral Composition (Typical)

Garnet (Almandite).....	+98-99%
Ilmenite.....	<0.8%
Zircon.....	<0.2%
Quartz.....	<0.5%
Others.....	<0.2%

### Physical Characteristics

Bulk density.....	131-137 lbs/ft <sup>3</sup>
Specific Gravity.....	4.1
Hardness (Mohs).....	7.50
Melting Point.....	1,250°C
Particle Shape.....	Sub-rounded to sub-angular
Reactivity.....	Inert

### Other Characteristics

Conductivity.....	0-15ms/m (max 25 ms/m)
Radioactivity.....	Not detectable above background
Moisture Absorption.....	Non-hydroscopic
Total Chlorides.....	10-15 ppm (max 25 ppm)
Free Iron.....	Less than 0.01%
Copper.....	Less than 0.01%
Other Heavy Metals.....	Less than 0.01%

For more information:

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