TECHNICAL DATA & PHYSICAL CHARACTERISTICS FOR BARTON GARNET ABRASIVES

Average Chemical Composition (wt %)
- SiO₂: 36%
- Al₂O₃: 20%
- FeO: 30%
- Fe₂O₃: 2%
- TiO₂: 2%
- MnO: 1%
- CaO: 2%
- MgO: 6%

Mineral Composition (Warranted Limit)
- Garnet (Almandite): +97.0%
- Ilmenite: <2.0%
- Zircon: <0.2%
- Quartz: <0.1%
- Others: <0.25%

Sizing - Typical % Retained

<table>
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<th>U.S. Mesh</th>
<th>Grade</th>
<th>30x60</th>
<th>80 Mesh</th>
<th>100 Mesh</th>
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Recommended Blasting Conditions
- Nozzle pressure: 90+ psi
- Material flow: 400-600 lbs/hr
- Nozzle size: #6 or larger
- Work distance: 18-24 inches

Mineral Composition (Warranted Limit)
- Garnet (Almandite): +97.0%
- Ilmenite: <2.0%
- Zircon: <0.2%
- Quartz: <0.1%
- Others: <0.25%

Physical Characteristics
- Bulk density: 140-150 lbs/ft³
- Specific gravity: 4.1
- Hardness (Mohs): 7.50
- Melting point: 1,250°C
- Particle shape: Sub-rounded to sub-angular
- Reactivity: Inert
- Conductivity: 10-15 ms/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%

Results of solubility and environment leach testing under federal (EPA toxicity) and state (California Title 22) are available upon request.

Barton garnet is certified by the California Air Resources Board for dry unconfined blasting. Barton 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).