



## Arman Gostar Karoon Garnet Technical Data Sheet

Garnet is a group of silicate minerals from the Bronze Age, used as gemstones and abrasives, which is derived from the word granatum. Their dissolution in acids is difficult and they rarely melt. All varieties of garnet have similar physical properties and crystal forms that differ in chemical composition. Garnet has different types such as pyrope, almandine, spsartite, grossula (ammonite or cinnamon stone), andranite and oarvite.

### TYPICAL PHYSICAL

#### PROPERTIES

<b>Colour</b>	Red
<b>Hardness</b>	7.8 Mohs
<b>Grain Shape</b>	Angular Multifaceted
<b>Melting point</b>	Around 1250 C
<b>Specific Gravity</b>	4 g/cm <sup>3</sup>
<b>Physical Appearance</b>	solid
<b>Ph</b>	7
<b>Conductivity at 25C</b>	25 ms/m
<b>Water soluble chlorides</b>	22 ppm
<b>Moisture content</b>	Approx 0.18 %
<b>Odor</b>	odorless

### TYPICAL CHEMICAL

<b>SiO<sub>2</sub></b>	<b>40.67</b>	SCaO	1.6
<b>Fe<sub>2</sub>O<sub>3</sub></b>	<b>39.21</b>	MnO	5.956
<b>Al<sub>2</sub>O<sub>3</sub></b>	<b>10.9</b>	BaO	0.74
<b>MgO</b>	<b>2.53</b>	TiO <sub>2</sub>	0.099
<b>Na<sub>2</sub>O</b>	<b>0.01</b>	ZnO	1.23
<b>K<sub>2</sub>O</b>	<b>0.03</b>	P <sub>2</sub> O <sub>5</sub>	0.044
<b>MgO</b>	<b>1.17</b>	L.O.I	0.02

### Garnet Particle Size

mm	Mesh
<b>0.8 – 1.4</b>	14 – 20
<b>0.4 – 0.8</b>	20 – 40
<b>0.2 – 0.6</b>	30 – 60
<b>0.17 – 0.25</b>	60 – 80
<b>0.14 – 0.17</b>	80 – 100
<b>other size can be produced</b>	

