



Technical Data & Specification

SMART, ECOLOGICAL,
HARD AS A ROCK

Ecō CUT

ROCK QUALITY 

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GENERAL DESCRIPTION	Almandite Garnet is a non metallic and chemically inert mineral relatively common in nature, whose main features are tenacity, hardness and resistance. These characteristics make the product the ideal solution for main applications required in abrasives industry. The high molecular density along with the high resistance to chemical agents and other abrasives action enhance its application potential also in fluids and water treatment and industrial filtration. Ecocut Rock Garnet is particularly tenacious and has an accentuated attack angle, even if Ecocut is not a crushed product. As per the aforementioned features Ecocut Rock Garnet is significantly more abrasive than sea mined garnet and also much more hard and tenacious than crushed or recycled products, offering the best performance.
CERTIFICATIONS	Manufactured under ISO14001:2004 / ISO9001:2008
WATER SOLUBILITY	Garnet is not soluble in standard conditions (20°C, distilled water)
HARDNESS	7.5/8.0 measured on Mohs scale
CHLORIDES CONTENT	<25 ppm max.
SPECIFIC GRAVITY	4,3
RELATIVE DENSITY	2,7 g/cm ³
ACID SOLUBILITY	<1%
MELTING POINT	1.315 °C
ELECTRICAL CONDUCTIVITY	< 200 µS/cm max.
FREE SILICA CONTENT	<1.0%
SUSPENDED SOLIDS	2000 mg/l max.
COLOUR	Dark red - Red/Brown
ANGULAR SHAPE	Sub Angular
AVAILABLE GRADES	From #8/12 to #120 mesh (standard US grain)
CHEMICAL ANALYSIS (TYPICAL)	SiO ₂ 33-38% FeO 30-35% Al ₂ O ₃ 19-22% MgO 6-8% CaO <2% TiO ₂ <3%

MINERALOGICAL ANALYSIS (TYPICAL)	Almandite 95% Hornblende 2-3% Ilmenite <2-3% Oltri <1%																																																																																																																																																																																																																																		
PACKAGING	Standard Packaging includes 25 kg bags inside 1 ton jumbo bags and loose 1 or 2 ton jumbo bags with inner liner. Customized and tailored packaging can be developed on customer demand.																																																																																																																																																																																																																																		
GRAIN DISPERSION (% RETAINED MASS)	<table border="1"> <thead> <tr> <th rowspan="2">MM</th> <th rowspan="2">MESH</th> <th colspan="10">PERCENTAGE RETENTION - TRATTENUTO PERCENTUALE</th> </tr> <tr> <th># 8/12</th> <th># 12/25</th> <th># 20/30</th> <th># 20/40</th> <th># 20/60</th> <th># 30/60</th> <th># 60</th> <th># 80</th> <th># 85</th> <th># 120</th> </tr> </thead> <tbody> <tr> <td>2,360</td> <td>8</td> <td>0</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>1,700</td> <td>12</td> <td>0 - 3</td> <td>0 - 0,1</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>1,400</td> <td>14</td> <td>10 - 21</td> <td>0 - 1</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>1,000</td> <td>18</td> <td>70 - 85</td> <td>12 - 25</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>0,850</td> <td>20</td> <td>0 - 7</td> <td>30 - 45</td> <td>0 - 2</td> <td>0 - 0,8</td> <td>0 - 1</td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>0,600</td> <td>30</td> <td>0 - 3</td> <td>30 - 50</td> <td>60 - 80</td> <td>25 - 45</td> <td>7 - 15</td> <td>0 - 2</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>0,425</td> <td>40</td> <td></td> <td>3 - 11</td> <td>20 - 40</td> <td>40 - 60</td> <td>25 - 40</td> <td>12 - 22</td> <td>0 - 0,2</td> <td>,01 - ,15</td> <td>0 - 0,4</td> <td></td> </tr> <tr> <td>0,355</td> <td>45</td> <td></td> <td></td> <td>ND</td> <td>ND</td> <td>ND</td> <td>ND</td> <td>ND</td> <td>ND</td> <td>0 - 1</td> <td></td> </tr> <tr> <td>0,300</td> <td>50</td> <td></td> <td></td> <td>0 - 4</td> <td>0 - 10</td> <td>35 - 55</td> <td>45 - 65</td> <td>20 - 35</td> <td>10 - 20</td> <td>3 - 12</td> <td>0 - 0,1</td> </tr> <tr> <td>0,250</td> <td>60</td> <td></td> <td></td> <td></td> <td></td> <td>3 - 10</td> <td>5 - 20</td> <td>40 - 55</td> <td>30 - 40</td> <td>7 - 17</td> <td>0 - 0,3</td> </tr> <tr> <td>0,212</td> <td>70</td> <td></td> <td></td> <td></td> <td></td> <td>0 - 3</td> <td>0 - 10</td> <td>15 - 30</td> <td>30 - 40</td> <td>10 - 20</td> <td>8 - 15</td> </tr> <tr> <td>0,180</td> <td>80</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>0 - 5</td> <td>0 - 5</td> <td>7 - 15</td> <td>12 - 25</td> <td>40 - 52</td> </tr> <tr> <td>0,150</td> <td>100</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>ND</td> <td>18 - 30</td> <td>27 - 35</td> </tr> <tr> <td>0,125</td> <td>120</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>1 - 5</td> <td>8 - 20</td> <td>5 - 10</td> </tr> <tr> <td>0,106</td> <td>140</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>3 - 10</td> <td>2 - 4</td> </tr> <tr> <td>0,090</td> <td>170</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>2 - 6</td> <td>0,1 - 0,5</td> </tr> <tr> <td>0,075</td> <td>200</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>0 - 4</td> <td></td> </tr> </tbody> </table>	MM	MESH	PERCENTAGE RETENTION - TRATTENUTO PERCENTUALE										# 8/12	# 12/25	# 20/30	# 20/40	# 20/60	# 30/60	# 60	# 80	# 85	# 120	2,360	8	0										1,700	12	0 - 3	0 - 0,1									1,400	14	10 - 21	0 - 1									1,000	18	70 - 85	12 - 25									0,850	20	0 - 7	30 - 45	0 - 2	0 - 0,8	0 - 1						0,600	30	0 - 3	30 - 50	60 - 80	25 - 45	7 - 15	0 - 2					0,425	40		3 - 11	20 - 40	40 - 60	25 - 40	12 - 22	0 - 0,2	,01 - ,15	0 - 0,4		0,355	45			ND	ND	ND	ND	ND	ND	0 - 1		0,300	50			0 - 4	0 - 10	35 - 55	45 - 65	20 - 35	10 - 20	3 - 12	0 - 0,1	0,250	60					3 - 10	5 - 20	40 - 55	30 - 40	7 - 17	0 - 0,3	0,212	70					0 - 3	0 - 10	15 - 30	30 - 40	10 - 20	8 - 15	0,180	80						0 - 5	0 - 5	7 - 15	12 - 25	40 - 52	0,150	100								ND	18 - 30	27 - 35	0,125	120								1 - 5	8 - 20	5 - 10	0,106	140									3 - 10	2 - 4	0,090	170									2 - 6	0,1 - 0,5	0,075	200									0 - 4	
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NOTE CONCLUSIVE	Please note that all the statements made before are valid on Garnet's original condition. The information until here given are referred only to the product sold under our trademark, these are reported at the better of our actual know-how and are meant only for an informational purpose, and are valid only under a correct technological use of the product itself. No kind of responsibility can be charged on IGM for any kind of accident happened to the buyer or third people due to an incorrect use of the product.																																																																																																																																																																																																																																		