

## Ebonygrit

### Technical Data Sheet

Ebonygrit is produced from a by-product of the combustion of copper, which is processed into abrasive products by Opta Minerals. Typically it is composed of ferrosilicate (Fayalite,  $Fe_2SiO_4$ ) material and metal oxides, formed when the molten slag is quenched in cold water. This cooling process fractures the slag into coarse, angular particles making it an ideal choice in many abrasive applications.

#### Typical Chemical Analysis (%):

Iron Oxide	$Fe_2O_3$	~ 57.0
Silicon Dioxide (total)	$SiO_2$	~ 29.5*
Aluminum Oxide $AL_2O_3$		~ 5.0
Zinc	Zn	~ 3.5
Calcium Oxide	CaO	~ 2.5
Magnesium Oxide	MgO	~ 1.0
Copper	Cu	~ 1.0
Loss on Ignition	LOI	< 0.01

\* Respirable Silica-Quartz                      None  
 Respirable Silica-Cristobalite                None

#### Typical Physical Properties:

<b>Colour</b>	Lustrous black	<b>Grain Shape</b>	Angular
<b>Bulk Density (loose)</b>	121 lbs./ft. <sup>3</sup>	<b>Moh Hardness</b>	7
<b>Bulk Density (compacted)</b>	136 lbs./ft. <sup>3</sup>	<b>Knoop 100 Hardness</b>	na
<b>Specific Gravity</b>	~ 3.8	<b>Melting Point</b>	na
<b>Moisture</b>	< 0.20%	<b>Solubility</b>	Insoluble

#### Typical Gradation:

U.S. Mesh	Microns	Per Cent	
		Retained	Passing
12	1700	1.5	98.5
16	1180	11.0	87.5
20	850	24.4	63.1
30	600	28.9	34.2
40	425	18.9	15.3
50	300	9.8	5.4
70	212	4.2	1.2
100	150	1.1	0.1
140	106	0.1	0.0
Grain Fineness #:		21.8	
Nominal Size (mm):		0.66	
Effective Size (mm):		0.36	
Uniformity Coefficient:		2.25	

