

Ebonygrit 14

Technical Data Sheet

Ebonygrit is produced from a by-product of the combustion of copper, which is processed into abrasive products by BEI PECAL. Typically it is composed of ferrosilicate (Fayalite, Fe₂SiO₄) 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 ₂ O ₃	~ 57.0
Silicon Dioxide (total)	SiO ₂	~ 29.5 *
Aluminum Oxide	AL ₂ O 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:

Colour	Lustrous black
Bulk Density (loose)	114 lbs./ft. ³
Bulk Density (compacted)	129 lbs./ft. ³
Specific Gravity	~3.8
Moisture	< 0.20%
Air Resources Board:	CERTIFIED, 2001

California Environmental Protection Agency
 (Test Method No. California 371-A)

Grain Shape	Angular
Moh Hardness	7
Knoop 100 Hardness	~500
Melting Point	na
Solubility	Insoluble
Result	Specification
<i>% Passing #70 Sieve:</i>	0.1 < 1.1
<i>5 Micron % (after blast):</i>	1.3 < 1.9

Typical Gradation: Standard

12/50

U.S. Mesh	Microns	Per Cent	
		Retained	Passing
12	170	0.7	99.3
16	1180	11.7	87.6
20	850	29.0	58.6
30	600	32.2	26.3
40	425	18.2	8.1
50	300	6.0	2.1
70	212	1.6	0.5
100	150	0.5	0.0
140	106	0.0	0.0
PAN	0	0.6	0.0
Grain Fineness #:		19.3	
Nominal Size (mm):		0.69	
Effective Size (mm):		0.45	
Uniformity Coefficient:		1.92	

