Opta Minerals Inc.

*Your one source*

# Ebonygrit 12

## 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 | $Fe_20_3$ | ~ 57.0 |
| Silicon Dioxide (total) | $SiO_2$ | ~ 29.5 * |
| Aluminum Oxide | $AL_20_3$ | ~ 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:

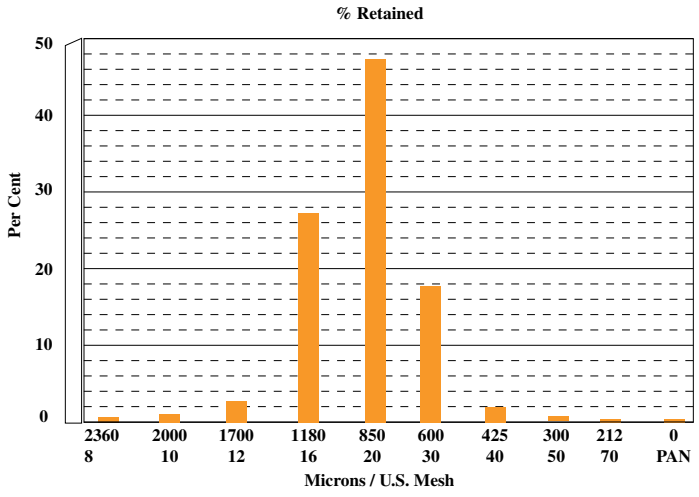
| | | | |
|---|---|---|---|
| **Colour** | Lustrous black | **Grain Shape** | Angular |
| **Bulk Density (loose)** | 117 lbs./ft.$^3$ | **Moh Hardness** | 7 |
| **Bulk Density (compacted)** | 132 lbs./ft.$^3$ | **Knoop 100 Hardness** | ~500 |
| **Specific Gravity** | ~3.8 | **Melting Point** | na |
| **Moisture** | < 0.20% | **Solubility** | Insoluble |
| **Air Resources Board:** | CERTIFIED, 2001 | | |

| | Result | Specification |
|---|---|---|
| *California Environmental Protection Agency (Test Method No. California 371-A)* | | |
| *% Passing #70 Sieve:* | *0.1* | *<1.1* |
| *5 Micron % (after blast):* | *1.2* | *<1.9* |

### Typical Gradation: Standard 12/30

| U.S. Mesh | Microns | Per Cent Retained | Per Cent Passing |
|---|---|---|---|
| 8 | 2360 | 0.3 | 99.7 |
| 10 | 2000 | 1.0 | 98.6 |
| 12 | 1700 | 2.6 | 96.0 |
| 16 | 1180 | 27.4 | 68.6 |
| 20 | 850 | 47.6 | 21.0 |
| 30 | 600 | 18.0 | 3.0 |
| 40 | 425 | 2.6 | 0.4 |
| 50 | 300 | 0.3 | 0.1 |
| 70 | 212 | 0.1 | 0.0 |
| PAN | 0 | 0.6 | 0.0 |

| | |
|---|---|
| Grain Fineness #: | 11.7 |
| Nominal Size (mm): | 0.92 |
| Effective Size (mm): | 0.73 |
| Uniformity Coeffecient: | 1.53 |




407 Parkside Drive, P.O. Box 260, Waterdown, Ontario, L0R 2H0 CANADA **Toll Free:** 1-888-689-6661 **Tel:** (519) 720-9664 **Fax:** (519) 720-9491 **E-mail:** info@optaminerals.com
**www.optaminerals.com**