

-  Consistent supply
-  Superior Quality
-  Customer Focus
-  Technical Expertise
-  Environment Friendly

# TOKALEV Abrasives

## TOKALEV Garnet

Abrasives for Sandblasting & Waterjet cutting



### Garnet (120) mesh)



**Type :** **ALMANDINE**

**General Description :** Garnet a homogeneous mineral, contains no free chemicals. All oxides and dioxides are combined chemically as follows :  $Fe_2O_3 \cdot Al_2O_3 \cdot (SiO_2)_3$ . The iron and aluminum are partially replaceable by calcium, magnesium and manganese.

#### Typical chemical analysis

| Elements                       | Specification (%) |
|--------------------------------|-------------------|
| SiO <sub>2</sub>               | 32 - 40           |
| Fe <sub>2</sub> O <sub>3</sub> | 28 - 35           |
| Al <sub>2</sub> O <sub>3</sub> | 18 - 24           |
| MgO                            | 5.0 - 9.0         |
| CaO                            | 1.0 - 3.0         |
| TiO <sub>2</sub>               | 1.0 - 2.0         |
| Others                         | 0.0 - 3.0         |

#### Sieve Analysis

| Mesh | Range (%) |
|------|-----------|
| 60   | 0         |
| 80   | 15 - 50   |
| 120  | 40 - 85   |

#### Physical properties

|                    |   |
|--------------------|---|
| Hardness :         | > 7 mohs  |
| Strength :         | Friable to tough                                  |
| Particle shape :   | Sharp, angular, irregular                         |
| Cleavage :         | Pronounced laminations, irregular cleavage planes |
| Color :            | Red to pink                                       |
| Streaks :          | White   |
| Transparency :     | Translucent                                       |
| Chloride :         | 9 - 15 ppm  |
| Specific Gravity : | 4.1 - 4.3   |

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#### Physical properties

|                               |   |
|-------------------------------|---|
| Lustre :                      | Vitreous  |
| Mean Refractive Index :       | 1.83  |
| Facet Angles :                | 37°C and 42°P   |
| Crystallization :             | Cubic (isometric) system as rhombic dodecahedrons or tetragonal trisoctahedrons or in combinations of the two   |
| Melting Point :               | 1,250°C   |
| Moisture Content :            | 0.04%   |
| Oil Content :                 | Traces  |
| pH Value :                    | 7.65  |
| Bulk Density :                | 2.25 gm/ml  |
| Garnet :                      | 97.5 to 98.5%   |
| Ilmenite :                    | 0.3 to 98.5%  |
| Quartz :                      | 0.5 to 1.0%   |
| Others :                      | 0.5 to 1.0%   |
| Magnetism :                   | Slightly magnetic (Volume susceptibility : 9.999375)  |
| Electrostatic properties :    | a) Mineral conductivity : 18,000 volts<br>b) Non reversible   |
| Moisture Absorption :         | Non-hygroscopic, inert  |
| Dispersion :                  | Self-dispersing   |
| Uniformity :                  | All Garnet mineral in this deposit was formed simultaneously under identical natural conditions and has been proven uniform throughout during over 18 years of use in technical abrasive applications |
| Pathological effects :        | None  |
| Harmful Free Silica Content : | None (Silicosis free)   |