

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

TOKALEV Garnet

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Abrasives for Sandblasting & Waterjet cutting



Garnet (30-60 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 ₂	32 - 40
Fe ₂ O ₃	28 - 35
Al ₂ O ₃	18 - 24
MgO	5.0 - 9.0
CaO	1.0 - 3.0
TiO ₂	1.0 - 2.0
Others	0.0 - 3.0

Sieve Analysis

Mesh	Range (%)
30	0 - 5
40	5 - 40
50	> 40
60	0 - 40
80	0 - 15
120	0 - 5

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 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)