# ABRASIVE MEDIA *Olivine Sand*

Product Data Sheet

## Introduction

Olivine Sand as an abrasive media,is noted for its high Mohs Hardness, low uniform thermal expansion, sharp edges and its remarkable ability to resist fracture from thermal and impact shock. Olivine has been famous for years as an excellent abrasive media for Sand Blasting and Waterjet Cutting. Especially Indian Olivine Sand is having Highest Hardness and Lowest Loss on Ignition makes it an ideal and economical abrasive media for Sand Blasting and Waterjet Cutting.

### General Description

Olivine Sand

### Appearance and odour

Olivine is a Green/Gray colour sandy odourless material, which is free flowing when dry. It is insoluble in water and any common organic solvents

### Typical Specification

| | |
|---|---|
| MgO | 49% MAX. |
| $SiO_2$ | 41% MAX. |
| $Fe_2O_3$ | 12 % MAX. |
| $Al_2O_3$ | 0.5-2.0% MAX. |
| $Cr_2O_3$ | 0.25% Max. |
| CaO | 0.2% Max. |
| L.O.I. | 1.50 Max |

# ABRASIVE MEDIA *Olivine Sand*

## Origin

India

## Applications

- As an abrasive media for Sand Blasting and Waterjet Cutting Services.
- Successfully replacing Garnet Sand, since it exhibits similar properties such as high specific gravity, sharp edges, high fracture resistance, high Mohs Hardness.
- For making, Refractory Bricks and Monolithic Refractories.

## Economy

- On average, about 66 percent of the operating costs of a waterjet cutting system is incurred by the abrasive media. Indian Olivine Sand replaces Garnet Sand successfully giving equal performance. Indian Olivine Sand is available at more than 50% less cost compared to Garnet Sand.
- With Olivine Sand, average life of focusing nozzle increased by over 50%. i.e. 80-100 hours plus on Garnet and 200 hours plus on Olivine.
- Mixture of Garnet Sand and Olivine Sand works successfully as well.

## Important Properties

Melting Point (°C) ~ 1600
Bulk Density, Loose (g/cm3) 1.75
Thermal Expansion (in./in.) 0.0083
Thermal Conductivity @1000°C (cal/s-cm -°C) 0.0025
Mohs Hardness @20°C 7.0 (Scale 7-8000)
pH Slightly Basic
Free Silica Content (%) < 0.1
**Specific Gravity** : 3.2-3.4 g/cc

## Grade

Coarser Grade 1-3 mm (ASTM -6/+16 mesh), Medium Fine Grade 0.2 – 0.5 mm (ASTM -30/+75), Fine Grade 0.1 – 0.25 mm (ASTM -60/+150 mesh)
Any size can be manufactured as per buyer's requirement.