

## Product Data Sheet

### Quartz — Metallurgical / Ferro-Alloy Grade

#### Description

|                     |                                                                                                                                                                                                                                                                                                              |
|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Description</b>  | Metallurgical-grade quartz (lumps) is a high-silica natural mineral used as a feedstock and fluxing agent in silicon metal, ferro-silicon, and ferro-alloy production. Typical SiO <sub>2</sub> content is 98–99% with low contaminants, supporting stable furnace operation and consistent alloy chemistry. |
| <b>Applications</b> | Used in silicon metal and ferro-silicon smelting, ferro-alloy production, and as a fluxing agent in steelmaking to remove impurities.                                                                                                                                                                        |
| <b>Used In</b>      | Silicon metal, ferro-silicon, ferro-alloys, steel flux                                                                                                                                                                                                                                                       |

#### Key Benefits

- High silica content – SiO<sub>2</sub> 98% – 99% (typical)
- Low contaminants suited to smelting furnace operation
- Available in sized lumps (10–50 mm and customisable)
- Good thermal stability under furnace conditions
- Consistent lot-to-lot chemistry from established Indian mines

#### Chemical Analysis & Physical Data

##### Chemical Composition

| Parameter                                         | Specification |
|---------------------------------------------------|---------------|
| Silicon Dioxide (SiO <sub>2</sub> )               | 98% – 99%     |
| Iron Oxide (Fe <sub>2</sub> O <sub>3</sub> )      | Max. 0.10%    |
| Aluminium Oxide (Al <sub>2</sub> O <sub>3</sub> ) | Max. 0.50%    |
| Calcium Oxide (CaO)                               | Max. 0.10%    |
| Titanium Dioxide (TiO <sub>2</sub> )              | Max. 0.05%    |
| Loss on Ignition (LOI)                            | Max. 0.30%    |

##### Physical Properties

| Property | Specification |
|----------|---------------|
|----------|---------------|

|                 |                           |
|-----------------|---------------------------|
| Form            | Lumps                     |
| Size            | 10 – 50 mm (customisable) |
| Moisture        | Max. 0.5%                 |
| Hardness (Mohs) | 7                         |
| Origin          | India                     |

\* Typical ranges; mine- and lot-dependent. Test methods available upon request.

### Packaging

- 50 kg PP / HDPE woven bags
- 1 MT / 1.25 MT Jumbo Bags (FIBC)
- Loose in bulk for large industrial / export orders
- Custom packaging available on request.

### Storage & Handling

- Store in a dry, covered area protected from moisture and contamination
- Avoid dust generation; provide adequate ventilation
- Keep away from contaminants that could affect purity
- Handle with appropriate PPE to control dust

**Disclaimer:** The information provided in this document is based on our current knowledge and is intended as a general guide. Specifications vary by mine and lot; figures are typical ranges. Ochnology Solution Pvt. Ltd. reserves the right to modify specifications without prior notice. Buyers are advised to conduct their own testing for specific applications.