

BABHANIYA OVERSEAS OPC PVT LTD

Premium Industrial Minerals & Materials – Technical Data Sheet (TDS)

1. COMPANY OVERVIEW & SUPPLY ADVANTAGE

Babhaniya Overseas OPC Pvt Ltd (Bharuch, Gujarat, India) is a government-recognized manufacturer, processor, and global exporter of high-grade industrial minerals. Operating from the mineral-rich zones of Western India, we cater to strict international standards for the Glass, Ceramics, Refractories, Foundries, and Chemical processing industries.

Our strategic proximity to India's premier deep-water ports (Mundra and Hazira) ensures unmatched supply chain reliability, highly optimized inland freight, and rapid container stuffing turnaround for our global B2B buyers.

2. TECHNICAL SPECIFICATIONS (PRODUCT PORTFOLIO)

A. Silica Sand & Silica Powder (Quartz Powder)

Processed from premium-grade quartzite deposits through advanced multi-stage washing, magnetic separation, and ultra-fine mesh grinding techniques to guarantee high chemical purity and low iron contamination.

TECHNICAL SPECIFICATION / PARAMETER	STANDARD GRADE VALUE	PREMIUM GLASS GRADE VALUE
Silicon Dioxide (SiO_2)	Min 98.5%	Min 99.4%
Iron Oxide (Fe_2O_3)	Max 0.04%	Max 0.012% (Ultra-Low Iron)
Aluminium Oxide (Al_2O_3)	Max 0.5%	Max 0.15%
Moisture Content	Max 4.0% (Crude) / < 0.5% (Dry)	Max 0.1% (Oven Dried)
Available Particle Sizes (Mesh)	30-80 Mesh, 16-30 Mesh (Sand)	200 Mesh, 300 Mesh, 500 Mesh (Powder)
Primary Industry Uses	Float Glass, Container Glass, Foundries, Paints, Ceramics, and Construction Chemicals.	

B. China Clay (Kaolin) - Ceramic & Calcined Grades

Sourced from high-quality primary deposits, our Kaolin undergoes systematic multi-stage levigation, refining, and high-temperature calcination to ensure excellent whiteness, optimal particle size distribution, and superior plasticity.

CHEMICAL & PHYSICAL PROPERTY	CERAMIC GRADE LEVIGATED	CALCINED COATING GRADE
Aluminium Oxide (Al_2O_3)	35% - 37%	38% - 40%
Silicon Dioxide (SiO_2)	45% - 47%	51% - 53%
Iron Oxide (Fe_2O_3)	Max 0.5%	Max 0.4%
Brightness / Whiteness (ISO)	82% - 85%	90% - 93%
Loss on Ignition (LOI)	12% - 14%	Less than 1.0%
Primary Industry Uses	Sanitaryware, Tableware, High-voltage Insulators, Paper Coating, Rubber, and Plastics.	

C. Zircon Flour (Zirconium Silicate Powder)

Milled from premium-grade imported zircon sand concentrates. Characterized by high chemical stability, exceptional opacifying efficiency, and outstanding refractive capabilities under severe temperature extremes.

PARAMETER SPECIFICATION	ZIRCON FLOUR 200 MESH	ZIRCON FLOUR 325 MESH / OPACIFIER
Zirconium Dioxide (ZrO_2 + HfO_2)	Min 65.5%	Min 66.0%
Free Silicon Dioxide (SiO_2)	Max 0.25%	Max 0.10%
Titanium Dioxide (TiO_2)	Max 0.15%	Max 0.12%
Iron Oxide (Fe_2O_3)	Max 0.08%	Max 0.06%
Particle Size (D_{50})	~ 15 to 20 Microns	Less than 5 Microns (Ultra-Fine)
Primary Industry Uses	Ceramic Frit Glazes, Investment Casting Shells, Refractory Linings, and Specialty Glass.	

3. QUALITY CONTROL & B2B EXPORT LOGISTICS

- **Multi-Tiered QC Assessment:** Every individual production batch undergoes strict laboratory evaluation mapping particle size distribution, chemical profiling via XRF analysis, and moisture tracking prior to port

dispatch. Third-party independent inspection certificates (SGS, Intertek, or Geo-Chem) are systematically provided upon client instruction.

- **Moisture-Proof B2B Packaging:** Standard supply formats feature heavy-duty multi-layered 25 Kg UV-stabilized Paper/PP bags or high-tensile 1.0 to 1.25 Metric Ton woven UV Jumbo Bags (FIBC) with specialized internal moisture barriers or thick PE liners.
- **Container Load Densities:** Custom container block palletization and shrink-wrapping are designed to withstand high-humidity marine environments across international ocean corridors. Typical loads range from 25 to 27 Metric Tons per 20-Foot Heavy-Tested FCL.

4. CUSTOM SAMPLE ORDERING & COMMUNICATION PROTOCOLS

We actively encourage engineering and sourcing managers to request formal technical samples for laboratory evaluation and mineralogical trial sequencing. Custom adjustments to specific mesh structures or chemical targets are fulfilled promptly by our engineering plants.

Corporate Office:

Babhaniya Overseas OPC Pvt Ltd
Bharuch, Gujarat, India

Global Sourcing Channels:

Managing Director: Vicky Babhaniya
Official Website: <https://babhaniya.com>