

High-Purity Industrial & Foundry Grade Silica Sand

Plant & Works: No.5, Dharam Park, Naranarayan Nagar, Junavas, Madhapar, Bhuj, Kutch,
Gujarat 370020
GSTIN: 24AFLPR8246R1ZG | UDYAM: UDYAM-GJ-13-0081294

PRODUCT: MASTER INDUSTRIAL SILICA SAND SPECIFICATION SHEET

Target Industry / Application: Foundry, Glass, Solar PV, Ceramics & Specialty Construction

CRITICAL SPECIFICATION & CUSTOMIZATION NOTICE:

The technical data, chemical assay values, and screen fractions in this document illustrate our standard production benchmarks. **Gujarat Minerals custom-processes every consignment to the exact chemical tolerances, particle size distribution (AFS fineness number), and moisture requirements requested by the client's plant engineers.** Custom multi-deck screening, low-iron magnetic separation, and kiln drying are calibrated specifically for each buyer's individual casting or furnace process.

1. Standard Chemical Properties (Typical Range)

Parameter	Guaranteed Benchmark	Testing Method	Industrial Significance
Silicon Dioxide (SiO ₂)	> 99.10% – 99.45%	IS: 1917 / XRF	High purity crystalline quartz matrix
Iron Oxide (Fe ₂ O ₃)	< 0.035% – 0.045%	Spectrophotometric	Prevents glass discoloration & fluxing
Aluminium Oxide (Al ₂ O ₃)	< 0.35%	Wet Chemical Assay	Maintains high refractoriness
Titanium Dioxide (TiO ₂)	< 0.02%	XRF Analysis	Zero coloring impurities
Loss on Ignition (LOI)	< 0.20% – 0.25%	Gravimetric at 1000°C	Zero volatile organic binders
Free Moisture Content	0.00% (Rotary Kiln Dry)	Oven Drying Method	Eliminates casting blowhole defects

2. Standard Particle Sieve Fractions & AFS Grades

Grade Classification	AFS Number	ASTM Mesh	Clay Content	Primary Application
Foundry Grade FD-Coarse	AFS 25-28	20/40 Mesh	< 0.06%	Heavy Steel & Large Grey Iron Moulds
Foundry Grade FD-Medium	AFS 35-40	30/60 Mesh	< 0.06%	Ductile Iron & Precision Valve Castings
Foundry Standard FD-40	AFS 40-45	40/70 Mesh	< 0.05%	Automotive Castings, Shell Moulding
Foundry Fine FD-50	AFS 50-55	50/100 Mesh	< 0.07%	Cold-Box Core Shooters & Smooth Casts
Glass Standard Sand	AFS 38-42	30/80 Mesh	< 0.05%	Container Glass & Float Flat Glass
Solar PV Quartz Sand	AFS 45-50	40/100 Mesh	< 0.04%	High-Transmission Photovoltaic Glass
Ceramics & Refractory Quartz	AFS 55-65	100/200 Mesh	< 0.08%	Tiles, Glazes, Sanitaryware, Mortars

3. Packaging, Coastal Vessel & Rail Logistics Options

- Packaging Options:** Loose in 42MT dedicated bulkers/tippers, 1.0–1.25 MT UV-stabilized FIBC Jumbo Bags, or 50kg multi-wall HDPE bags.
- Southern States Shipping (Tamil Nadu, Kerala, Karnataka, Andhra Pradesh):** High-volume containerized dispatches shipped via Coastal Vessel (20ft FCL Ship containers up to 28 MT) from Kandla/Mundra ports to Tuticorin/Chennai/Cochin ports, alongside direct Western Railway rake loading and road transport.

- **Northern & Western States (Gujarat, Maharashtra, Rajasthan, MP, Haryana):** Rapid multi-axle bulkers (24–48 hours for Gujarat/Rajasthan, 5–6 days for Maharashtra/MP/Haryana).
- **Worldwide Export:** FOB Mundra / Kandla Port, CIF, CFR container stuffing (27–28 MT per 20ft container).

FREE LAB TESTING SAMPLE DISPATCH:

Gujarat Minerals provides a **complimentary 1–2 KG representative lab testing sample** delivered free of charge to your plant address or testing laboratory upon request. Contact our sales desk at +91 8160760417 or mail@gujaratminerals.in to request your sample batch.