

FEATURES & BENEFITS

SILEX® ground silica is produced from high purity industrial quartz feed stock. Consistently uniform chemistries, minimal levels of iron and other refractive elements, and statistical control of particle size distribution make SILEX ideally suited for the manufacture of specialty glass fibers and continuous filament production.

In the manufacture of glass fiber, SILEX provides a chemically pure silicon dioxide source with certified particle size uniformity and control of “coarse” grains to maximize the rate of pull from the furnace without an increase of unmelted stones which could interrupt or break the continuous filament. SILEX will combine immediately with other batch constituents and completely fuse in the glassy phase to effectively reduce melt energy requirements and produce a homogeneous batch to improve the draw through the bushings.

All SILEX grades are processed with rigid adherence to Covia QIPSM statistical and quality assurance programs. The result is chemical purity and consistently uniform particle size distributions for predictable results and reliable service.

PARTICAL SIZE ANALYSIS

Typical Mean Values. These Do Not Represent A Specification.

| | Mesh Size | | SILEX® Grade |
|--|-----------|---------|--------------|
| | ASTM | MICRONS | 200 |
| Typical mean % retained on individual sieves | 70 | 212 | - |
| | 100 | 150 | - |
| | 140 | 106 | 0.2 |
| | 200 | 75 | 1.3 |
| | 270 | 53 | 6.9 |
| | 325 | 45 | 5.8 |
| | <325 | <45 | 85.8 |

PHYSICAL PROPERTIES

Typical Mean Values. These Do Not Represent A Specification.

| SILEX® Ground Silica | | |
|---------------------------------------|-----------|-----------------|
| Specific Gravity (g/cm ³) | 2.65 | ASTM C-128 |
| Moisture Content % | <0.1 | ASTM C-566 |
| Fusion Point (Pyrometric Cone) | 32.5 | ASTM C-24 |
| Melting Point (°F/°C) | 3135/1724 | ASTM C-24 |
| pH (%) | 6.9-7.2 | ASTM C-113-87-S |

CHEMICAL ANALYSIS

Typical Mean Values. These Do Not Represent A Specification.

| Typical Mean Percent by Weight | |
|--|-------|
| Silicon Dioxide (SiO ₂) | 99.61 |
| Iron Oxide (Fe ₂ O ₃) | 0.03 |
| Aluminum Oxide (Al ₂ O ₃) | 0.21 |
| Calcium Oxide (CaO) | 0.01 |
| Titanium Dioxide (TiO ₂) | 0.01 |
| Magnesium Oxide (MgO) | 0.01 |
| Potassium Oxide (K ₂ O) | 0.01 |
| Sodium Oxide (Na ₂ O) | tr |
| Loss on Ignition (LOI) | 0.11 |

SHIPPING/ORDERING INFORMATION

- Shipping Point: Lugoff, SC
- Originating Carrier: CSX Railroad
- Availability: Bulk Only
Truck Only

CUSTOMER SERVICE

US & Canada: 1-800-243-9004

Fax: 1-800-243-9005

Worldwide: 1-203-442-2500

Fax: 1-203-972-1378

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GRADE NUMBERS INDICATE RELATIVE VALUES OR RESULTS. THEY ARE NOT A SPECIFICATION OR WARRANTY OF PERFORMANCE.

Health Hazard Warnings: Prolonged inhalation of dust associated with the materials described in this data sheet can cause delayed lung injury including Silicosis, a progressive, disabling and sometimes fatal lung disease. IARC and NTP have determined that crystalline silica can cause lung cancer in humans. Risk of injury is dependent on the duration and level of exposure. Follow OSHA or other relevant safety and health standards for the form of crystalline silica called Quartz. Current safety data sheet, containing safety information, is available and should be consulted before usage.

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Silica/Silica Containing

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