

FEATURES AND BENEFITS

OTTAWA, MN

GRANUSIL[®] Mineral Fillers are produced from high purity industrial quartz sands for a wide variety of industrial and contractor mixed applications which need a reliable silica contribution or require a chemically inert structural filler. Consistently uniform grain shapes and particle size distributions offer excellent placement, compaction and mechanical properties. High silica content combined with low level soluble ions, alkalis and alkaline oxides provide non-reactive service in most corrosive and exposed environments.

These durable monocrystalline structures resist abrasion in high traffic-excessive wear applications and provide the stability formulators seek in high solids emulsions, elastomeric, cemented and modified cementitious systems. GRANUSIL[®] is the preferred structural component in systems ranging from polymerized floor overlays to artificial sports turf.

All GRANUSIL[®] grades are processed and sized under rigid SPC and UNIMIN QIPSM statistical and quality assurance programs. The result is chemical purity and consistently uniform particle size distributions for predictable performance in either manufactured or site-prepared products.

PARTICLE SIZE ANALYSIS AND PROPERTIES

Mean Values. These Do Not Represent A Specification.

| | Mesh | 4095 | 4075 | 4060 | 4030 | 4020 | 5020 | 5010 | 7020 |
|----------------|-----------|------|------|------|------|------|------|------|------|
| | ASTM E-11 | | | | | | | | |
| | 16 | --- | --- | --- | --- | --- | --- | --- | --- |
| Typical Mean % | 20 | 1.2 | 0.4 | 0.3 | --- | --- | --- | --- | --- |
| Retained on | 30 | 36.1 | 29.0 | 11.4 | 0.1 | --- | --- | --- | --- |
| Individual | 40 | 57.2 | 55.5 | 40.2 | 22.5 | 18.1 | 2.4 | 0.4 | 0.1 |
| Sieves | 50 | 5.1 | 12.0 | 30.6 | 54.7 | 35.8 | 19.9 | 12.2 | 1.2 |
| | 70 | --- | --- | 10.1 | 17.4 | 29.1 | 37.2 | 30.9 | 24.1 |
| | 100 | --- | --- | --- | 4.2 | 12.4 | 26.5 | 32.8 | 42.7 |
| | 140 | --- | --- | --- | 0.9 | 3.8 | 11.0 | 17.7 | 23.5 |
| | 200 | --- | --- | --- | --- | 0.8 | 2.7 | 5.3 | 7.2 |
| | 270 | --- | --- | --- | --- | --- | 0.3 | 0.7 | 1.1 |
| | PAN | 0.4 | 3.1 | 7.4 | 0.2 | --- | --- | --- | 0.1 |

| | | |
|-------------------------|---------------------------|------------|
| Grain Shape | Rounded | Visual |
| Hardness | 7.0 Mohs | Mohs Scale |
| Moisture Content | <0.1% | ASTM C-566 |
| Specific Gravity | 2.65 g/cm ³ | ASTM C-128 |
| Bulk Density, aerated | 92-95 lb/ft ³ | ASTM C-29 |
| Bulk Density, compacted | 98-100 lb/ft ³ | ASTM C-29 |

CHEMICAL ANALYSIS

Mean Values. These Do Not Represent A Specification.

Mean Percent by Weight

| | |
|--|--------|
| Silicon Dioxide (SiO ₂) | 99.692 |
| Iron Oxide (Fe ₂ O ₃) | .038 |
| Aluminum Oxide (Al ₂ O ₃) | .073 |
| Calcium Oxide (CaO) | .014 |
| Titanium Dioxide (TiO ₂) | .006 |
| Magnesium Oxide (MgO) | .012 |
| Potassium Oxide (K ₂ O) | .020 |
| Sodium Oxide (Na ₂ O) | .005 |
| Loss on Ignition (LOI) | .121 |

ORDERING INFORMATION

Shipping Point: OTTAWA, MN
ORIGINATING CARRIER: UNION PACIFIC (UP)

Availability: BULK, 50# AND 100# PAPER BAGS, AND IBC'S
TRUCK AND RAIL

UNIMIN

UNIMIN CORPORATION

FOR PRODUCT INFORMATION AND CUSTOMER SERVICE:

U.S. and CANADA 800-243-9004 · FAX 800-243-9005

WORLDWIDE 203-966-1306 · FAX 203-972-1378

Silica Sands · Ground Silica · Feldspar · Ball Clay · Kaolin · Nepheline Syenite · High Purity Quartz · Olivine · Microcrystalline Silica · Bentonite Clay · Dolomite

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

HEALTH HAZARD WARNING: 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 has determined that crystalline silica, inhaled from occupational sources, can cause 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 material safety data sheets, containing safety information, is available and should be consulted before usage.

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Silica/Silica Containing
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