

**FEATURES AND BENEFITS**

**EMMETT, ID**

GRANUSIL<sup>®</sup> 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, elastomerics, cemented and modified cementitious systems. GRANUSIL<sup>®</sup> is the preferred structural component in systems ranging from polymerized floor overlays to artificial sports turf.

All GRANUSIL<sup>®</sup> grades are processed and sized under rigid SPC and UNIMIN QIP<sup>SM</sup> 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 ASTM E-11	2095	2075	4095	4075	4060	4010	7030
Typical Mean %	8	3.5	---	---	---	---	□ ---	---
Retained on	16	70.5	12.9	.4	.2	.1	---	---
Individual Sieves	20	22.8	59.9	19.6	8.8	.3	---	---
	30	2.1	18.4	58.5	30.8	13.3	TR	---
	40	.8	7.1	19.5	50.4	70.4	12.4	.2
	50	.2	1.3	1.6	8.8	14.1	38.4	1.9
	70	.1	.3	.3	.7	1.2	28.7	38.7
	100	---	.1	.1	.2	.3	13.4	36.3
	140	---	TR	TR	.1	.2	6.0	19.2
	200	---	---	TR	TR	.1	.9	3.1
	PAN	---	---	---	---	TR	.2	.6

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

## CHEMICAL ANALYSIS

Mean Values. These Do Not Represent A Specification.

	Mean Percent by Weight	
	<u>2095-2075</u>	<u>4095-7030</u>
Silicon Dioxide (SiO <sub>2</sub> )	90.484	87.263
Iron Oxide (Fe <sub>2</sub> O <sub>3</sub> )	.095	.113
Aluminum Oxide (Al <sub>2</sub> O <sub>3</sub> )	5.451	7.244
Calcium Oxide (CaO)	.358	.609
Titanium Dioxide (TiO <sub>2</sub> )	.016	.018
Magnesium Oxide (MgO)	.021	.024
Potassium Oxide (K <sub>2</sub> O)	2.536	2.819
Sodium Oxide (Na <sub>2</sub> O)	.714	1.672
Loss on Ignition (LOI)	.325	.238

## ORDERING INFORMATION

**Shipping Point:** EMMETT, ID  
**ORIGINATING CARRIER:** UNION PACIFIC

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



**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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