

## FEATURES & BENEFITS

FILTERSIL® Filtration Sand and Gravel is produced from high-purity monocrystalline industrial quartz sand. FILTERSIL grades are engineered to perform in mixed media and pressure filters for portable water filtration and have been proven effective in industrial process water filtration and waste treatment. Resistant to degradation during handling and backwashing, these dense and durable sands effectively improve filter efficiency with optimized flow rates and reduced maintenance downtime.

In water producing wells, FILTERSIL will increase the yield from the aquifer by increasing the permeable zone around the well screen. FILTERSIL's ability to effectively bridge and filter finer or highly laminated formation at the interface offer drillers the option to use larger slot sizes for improved hydraulic conductivity with little or no headloss through the filter pack.

All FILTERSIL grades are processed and sized with strict adherence to Covia's QIP<sup>SM</sup> statistical and quality assurance controls. FILTERSIL meets all AWWA B-100, ANSI, and NSF-61 standards for consistently uniform and chemically inert filter media.

## PARTICAL SIZE ANALYSIS

*Typical Mean Values. These Do Not Represent a Specification.*

	Mesh Size		FILTERSIL® Grades							
	ASTM	MICRONS	1.0	0.75	0.65	0.55	0.45	0.35	0.25	0.15
Typical mean % retained on individual sieves	12	1.7 mm	0.9							
	16	1.18 mm	64.8	2.2	0.9	0.7	0.2			
	18	1.0 mm	21.7	24.6	23.1	20.0	0.9			
	20	850	9.4	49.6	42.2	37.9	2.1			
	25	710	2.3	22.5	20.6	20.5	11.6			
	30	600	0.3	0.8	4.9	7.2	25.2	0.1		
	35	500	0.2	0.1	5.3	8.3	40.2	5.5		
	40	425	0.1		2.0	3.4	15.5	46.9	2.0	1.3
	50	300	0.1		0.6	1.3	3.8	45.8	56.9	27.9
	70	212						1.4	37.3	38.5
	100	150							3.5	21.5
	140	106								8.9
	200	75								1.8
	270	53								0.1
	PAN	PAN	0.2	0.1	0.5	0.7	0.5	0.3	0.2	0.0
Effective Size (mm)			0.96	0.77	0.64	0.56	0.45	0.31	0.23	0.15
Uniformity Coefficient			1.32	1.25	1.48	1.66	1.33	1.44	1.51	1.89
Approximate Screen Slot Size (inches)			0.030	0.020	0.020	0.015	0.010	N/A	N/A	N/A

## PHYSICAL PROPERTIES

*Typical Mean Values. These Do Not Represent a Specification.*

FILTERSIL® Filtration Sand and Gravel		
Grain Shape	Rounded	Visual
Hardness (Mohs)	7.0	Moh's Scale
pH	7.0 - 8.6	AFS 113-87-S
Moisture Content (%)	<0.1	ASTM C-566
Acid Solubility (%)	<0.5	API RP56
Specific Gravity (g/cm <sup>3</sup> )	2.65	ASTM C-128
Bulk Density/Loose (lb/ft <sup>3</sup> )	92-95	ASTM C-29
Bulk Density/Compacted (lb/ft <sup>3</sup> )	98-100	ASTM C-29

## CHEMICAL ANALYSIS

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Typical Mean Percent by Weight	
Silicon Dioxide (SiO <sub>2</sub> )	99.74
Iron Oxide (Fe <sub>2</sub> O <sub>3</sub> )	0.03
Aluminum Oxide (Al <sub>2</sub> O <sub>3</sub> )	0.01
Calcium Oxide (CaO)	0.05
Titanium Dioxide (TiO <sub>2</sub> )	0.02
Magnesium Oxide (MgO)	0.01
Potassium Oxide (K <sub>2</sub> O)	0.01
Sodium Oxide (Na <sub>2</sub> O)	0.01
Loss on Ignition (LOI)	0.12

## SHIPPING/ORDERING INFORMATION

- Shipping Point: Ottawa, MN
- Originating Carrier: Union Pacific (UP)
- Availability: Bulk, IBC, 50 lb Poly Bag  
Truck and Rail

### 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 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 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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