Microcrystalline Silica

Elco, IL #043

FEATURES & BENEFITS

IMSIL® Microcrystalline silica fillers are produced from an inert, naturally occurring alpha quartz with a unique grape-like morphology. Easily wetted and dispersed in either solvent or water-based systems, IMSIL is selected for its excellent tint retention, durability over prolonged exposure, and resistance to dirt and weathering.

Interior architectural paints formulated with IMSIL will exhibit strengthened film integrity, increased stain resistance, more uniform sheen control, and excellent "touch-up" characteristics. Low oil absorption, regardless of particle size, enables formulators to increase loading without adversely affecting critical film properties. Exterior coatings containing IMSIL will better resist weathering, chalking, and under eave frosting. When used in primers, IMSIL also provides the "tooth" necessary for better intercoat adhesion and greater durability in abrasive or corrosive environments. IMSIL has been proven effective in trade sales paints, OEM finishes, marine and industrial coatings, and potting compounds. Finer, micronized grades are useful in formulating higher gloss paints, and systems requiring controlled mineral top size, such as thin coatings and inks. Coarser grades offer texture, traction properties, gloss control, and abrasion resistance in coatings, grouts, sealants, and related building products.

All IMSIL 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 AND PROPERTIES

Typical Mean Values. These Do Not Represent a Specification.

	Typical % Passing							
	MICRONS	A-75	1240	A-30	A-25	A-15	A-10	A-8
Typical mean	250	_	-	-	-	_	-	-
% retained on individual sieves	150	100.0	-	-	-	_	-	_
	106	99.9	-	-	-	_	-	_
	75	98.4	100.0	100.0	-	_	-	_
	45	89.7	98.7	99.6	100.0	_	-	_
	38	_	-	_	99.9	100.0	_	_
	25	_	-	-	99.8	99.9	100.0	_
	15	_	-	_	90.4	98.5	99.5	100.0
	10	_	-	-	76.7	90.9	98.5	99.9
	8	_	-	-	72.6	81.3	97.3	99.1
	5	_	_	_	51.2	64.3	78.1	90.0
Median Particle Size (μ)	-	11.3	9.2	8.1	5.0	3.5	2.4	1.6
Surface Area (m²/g)	_	4.3	4.8	4.9	5.3	5.6	6.1	7.3
Brightness (TAPPI)	_	83	84.5	85	85.5	85.5	86	87
Oil Absorption (g/100g)	-	27	28	28	28	28	28	28
Moisture (%)	_	0.17	0.17	0.17	0.18	0.20	0.20	0.20

Weight/Solid Gallon (lbs/gallon)	22.07	ASTM D-153
Bulking Value	0.0453	ASTM C-29
Specific Gravity (g/cm³)	2.65	ASTM C-128
Н	6.6	AFS 113-87-S
Refractive Index	1.54-1.55	ASTM D-801
Hardness (Mohs)	6.5	Mohs' Scale





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CHEMICAL AND ANALYTICAL DATA

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	Mean Percent By Weight		
Silicon Dioxide (SiO ₂)	98.89		
Iron Oxide (Fe ₂ O ₃)	0.07		
Aluminum Oxide (Al ₂ O ₃)	0.47		
Calcium Oxide (CaO)	0.03		
Titanium Dioxide (TiO ₂)	0.02		
Magnesium Oxide (MgO)	0.02		
Potassium Oxide (K ₂ O)	0.05		
Sodium Oxide (Na ₂ O)	0.01		
Loss on Ignition (LOI)	0.44		

SHIPPING/ORDERING INFORMATION

• Shipping Point: Elco, IL

• Availability: Bulk, IBC and 50 lb Paper Bag

Truck Shipping for Select Grades

CUSTOMER SERVICE

Please contact our exclusive distributor, Sibelco, directly for product information and customer service at Info@Sibelco.com

This product is manufactured by Covia CustomerService@CoviaCorp.com 203.442.2500

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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. Avoid creating dust when handling, using or storing. Follow OSHA Safety and Health Standards for fugitive dust. Current Material 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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