

# Silica (Quartz)

Micronized and coated Silica Powder

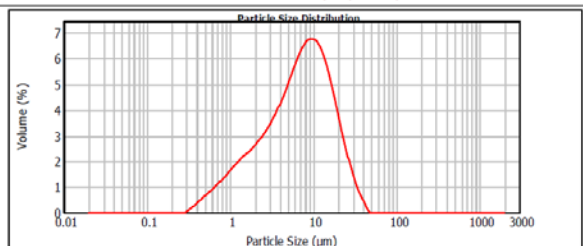
Typical chemical analysis Grades/mass%		
Constituents	Quasil -3D	Quasil-6P
SiO <sub>2</sub>	99.50	99.50
Al <sub>2</sub> O <sub>3</sub>	00.11	00.11
TiO <sub>2</sub>	00.01	00.01
CaO	00.03	00.03
MgO	00.02	00.02
K <sub>2</sub> O	00.01	00.01
Na <sub>2</sub> O	00.06	00.06
Fe <sub>2</sub> O <sub>3</sub>	00.004	00.004
L.O.I.	00.20	00.20
<b>Unfired properties</b>		
Brightness	+88	+95,+ 88,+91
Whiteness	+90	+95,+90,+ 93
Oil absorption ML/100gm	26.90	26.30
Specific gravity	2.31	2.37

Silane Coated Silica powders will be available soon.

Bulk density-gm/cc		
Particle size distribution		
D50 um	< 4um	<7um
D97 um	<24 um	<27um
D100 um	49-51 um	44-52 um 00.4%
Sieve analysis # 500 mesh	00.4%	

## Particle size distribution graph-Silica Powder Quasil-6P

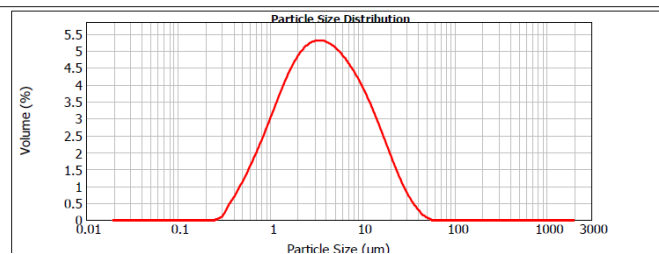
D(0.10) : 1.37 μm      D(0.25) : 3.15 μm      D(0.50) : 6.95 μm      D(0.70) : 11.02 μm  
 D(0.90) : 19.01 μm      D(0.97) : 27.12 μm      D(1.00) : 44.57 μm



Size (μm)	Vol Under %	Size (μm)	Vol Under %	Size (μm)	Vol Under %	Size (μm)	Vol Under %	Size (μm)	Vol Under %
0.020	0.00	0.142	0.00	1.002	6.23	7.096	50.86		
0.022	0.00	0.159	0.00	1.125	7.53	7.962	55.72		
0.025	0.00	0.178	0.00	1.262	8.95	8.934	60.75		
0.028	0.00	0.200	0.00	1.416	10.50	10.024	65.85		
0.032	0.00	0.224	0.00	1.589	12.18	11.247	70.89		
0.036	0.00	0.252	0.00	1.783	13.98	12.619	75.76		
0.040	0.00	0.283	0.00	2.000	15.91	14.159	80.34		
0.045	0.00	0.317	0.02	2.244	17.97	15.887	84.50		
0.050	0.00	0.356	0.15	2.518	20.18	17.825	88.18		
0.056	0.00	0.399	0.37	2.825	22.55	20.000	91.32		
0.063	0.00	0.448	0.70	3.170	25.11	22.440	93.91		
0.071	0.00	0.502	1.13	3.557	27.90	25.179	95.95		
0.080	0.00	0.564	1.68	3.991	30.95	28.251	97.49		
0.089	0.00	0.632	2.34	4.477	34.29	31.698	98.59		
0.100	0.00	0.710	3.12	5.024	37.94	35.596	99.32		
0.112	0.00	0.796	4.03	5.637	41.93	39.905	99.77		
0.126	0.00	0.893	5.07	6.325	46.24	44.774	99.99		

## Particle size distribution graph-Silica Powder Quasil-3D

D(0.10) : 0.93 μm      D(0.25) : 1.72 μm      D(0.50) : 3.65 μm      D(0.70) : 6.66 μm  
 D(0.90) : 14.52 μm      D(0.97) : 23.76 μm      D(1.00) : 51.35 μm



Size (μm)	Vol Under %	Size (μm)	Vol Under %	Size (μm)	Vol Under %	Size (μm)	Vol Under %	Size (μm)	Vol Under %
0.020	0.00	0.142	0.00	1.002	11.40	7.096	71.94	50.238	99.98
0.022	0.00	0.159	0.00	1.125	13.81	7.962	75.35	56.368	100.00
0.025	0.00	0.178	0.00	1.262	16.48	8.934	78.59	63.246	100.00
0.028	0.00	0.200	0.00	1.416	19.42	10.024	81.84	70.963	100.00
0.032	0.00	0.224	0.00	1.589	22.60	11.247	84.50	79.521	100.00
0.036	0.00	0.252	0.00	1.783	25.99	12.619	87.12	89.337	100.00
0.040	0.00	0.283	0.02	2.000	29.58	14.159	89.51	100.237	100.00
0.045	0.00	0.317	0.10	2.244	33.31	15.887	91.84	112.466	100.00
0.050	0.00	0.356	0.36	2.518	37.17	17.825	93.51	126.191	100.00
0.056	0.00	0.399	0.78	2.825	41.10	20.000	95.11	141.589	100.00
0.063	0.00	0.448	1.37	3.170	45.09	22.440	96.44	158.866	100.00
0.071	0.00	0.502	2.15	3.557	49.09	25.179	97.51	178.250	100.00
0.080	0.00	0.564	3.12	3.991	53.07	28.251	98.35	200.000	100.00
0.089	0.00	0.632	4.31	4.477	57.02	31.698	98.98	224.404	100.00
0.100	0.00	0.710	5.72	5.024	60.91	35.596	99.43	251.785	100.00
0.112	0.00	0.796	7.36	5.637	64.70	39.905	99.73	282.508	100.00
0.126	0.00	0.893	9.25	6.325	68.39	44.774	99.90	316.979	100.00

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**Important notice regarding this information :** Silica is a naturally occurring raw material & its composition mentioned above is expected to vary. The statements and technical information contained in this document are based on our research and research of others. However, this document is not contractual, and nothing in it, constitutes a warranty (expressed or implied) that the goods described are accurate and fit for a particular purpose of the customer. Purchasers are advised to make their own tests to determine the suitability of offered materials before placing order and also well before consuming. This specification supersedes any former publication and is subject to change without notice.



**APPLICATIONS:**

round ,fine and ultrafine (micronized) silica flours and powders are naturally bright, white, low in moisture and chemically inert. Silica-Quartz contain at least 99.5% pure SiO<sub>2</sub> and are used in many different products requiring rigid control of physical and chemical properties. RGe has capabilities to produce and supply 5,10,20,30,44um microns micronized Silicas for high tech application.

**Silica for Coatings**

**Silica, Quartz finds application** as a filler and extender in paint formulations, fine-ground silica renders paint more resistant to chemical attack because of its acid resistance and improves scrubability and burnish resistance. Its durability and chemical inertness make it an excellent product for epoxies, coatings, mastics, adhesives and sealants

**Silica for Ceramics.** High purity ground silica provides a bright, white silica base for glazes and bodies, and the consistent size distribution assures reproducible viscosity in slips.

**Silica for Plastic and Rubber** Ground 44,30,20,10,5um top cut micronized silica quartz found wide industrial application as an additive for plastics , Plastic master batches and rubber

**Silica for metallurgy, refractory, investment casting,** Many industrial processes require high temperature resistant containers that are chemically inert and resistant to thermal shock. To produce an extensive range of Crucibles, Basins and Trays for applications as diverse as precious metal refining, phosphor powder production and metal casting it requires high purity fused silica made out of low impurity silica-quartz as raw material. In various refractory lining, coatings, investment casting slurries where fusion and melting point is critical to avoid metal penetration Silica in different grains and fineness is applied. Its main refractory application is silica monolithic refractory mass for lining of different type of furnaces

**Silica / Quartz for Electronics , semiconductor,** Fused quartz, Silica is of amorphous type and in its fused form it posses the lowest thermal expansion coefficient among all the industrial minerals as well as good thermal shock resistance and low thermal conductivity. In addition, it is chemically stable and has high insulation resistance.

The fused quartz or fused silica is utilized in semi- conductor/silicon chip industry and special glass making industries

**Particle size, packaging & deliveries**

Grained, ground , micronized quartz, Silicas Available in 0-10mm,20-100 mesh, 200, 250, 300, 325 ,400 meshes & in. 20 ,10 and 5 um top cut particles Silica ,quartz is Packed in new / used HDPE / PP laminated / un laminated 25-50 kg bags For exports packaging in 50kg laminated bags duly palletized, shrink wrapped is offered in general. FIBC packaging is also available.

Delivery -Ex works Beawar, Rajasthan or FOB Mundra Port/CIF desired destinations