

CLASS 6000

Silicon and aluminum oxides and hydroxides with no sub-classifications (amorphous and crystalline silica, diatomaceous earth, silica aerogel, blastite, aluminum hydroxide, etc.). See classes 52 and 58 for related non-pigment compounds.

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Number	Material	Avg. Part., Microns	Residue 325 Mesh % Max.	Oil Abs. 419.3	Remarks	Bulk G/100#
<u>Diatomaceous Silica, Paint Manufacture</u>						
6028	Celite 266, Uncalc.	0-4	1.0	170		6.00
6025	Snowfloss, Uncalc.	1.0	1.0	170	Fine Polishes	6.00
6030	Celite 281, Flux Calc.	2-10	2.5	140	White Color	5.21
60L3	Celite 165S	1-6	2.0	100		5.22
60M1	Celite 110, Flux Calc.	4-20	15.0	170		5.22
60A14	Celite 209				Bound Brook	
60F3	Celite 5106 in Vinyl Paste				M69 Lacquer	10.0
<u>Diatomaceous Silica, Filter Aids</u>						
6031	Celite 551, Flux Calc.		15 (150M)	150		5.20
60C4	Dicalite 4200					
60C10	Dicalite 2500					
60C0	Dicalite Speed-Plus		8.0(150M)			5.2
60C11	Special Speed-Flow					
60C12	Dicalite 689T					
60L1	Celite 545	12-15				
60Y2	Super Floss, Flux Calc.		0.5	32		5.20
60P2	Celite 535					
<u>Silica Aerogels</u>						
60L5	Santocel C	4.0	0.2	30		5.86
60C1	Sylcid 308	3-7	0.2	170	Auto Lacqs.	5.50
60C13	Santocel 54					5.88
60Y3	Sylcid 162			145	Flat Varnish	6.06
<u>Silica (Sand, etc.)</u>						
6005	Amorphous	6.0	1.0	30-35		4.54
6010	Crystalline	6.5	0.5	22-27		4.48
60A12	Hi-Sil				Bound Brook	
60C6	Silica Flour 68				Text.Emuls.	4.54
60C8	#17 Sand				Text.Emuls.	4.49
60C9	Bond Sand				Text.Emuls.	4.54
60F1	Velveteen R. Silica		5	28	MLP	4.69
60M2	Rose Tripoli		4	50		4.56
<u>Silica (Glass Beads-Traffic Paint)</u>						
60A3	Sphere-o-Lite P90 - 80% Spheres					4.50
60A15	Glass Beads - 75% Spheres					
60C15	Ground Glass					
<u>Alumina</u>						
60A5	Elastite Grain 90 or 80				Non-Skid	3.08
60P1	Blastite Grain 90				Non-Skid	3.05
60C14	Alumina Hydrate		5.0	44	CP Dept.	

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Remarks

Diatomaceous earth deposits consist of siliceous remains of fossil diatoms together with up to 30% organic matter, and various inorganic impurities as sand, clay, calcium and magnesium carbonates, and soluble salts.

Two primary uses of diatomaceous earth are as a paint filler and as a filter medium. Among the desired effects which it contributes to paints, varnishes and lacquers are high flatting, high consistency, prevention of blistering, softer grinding, good suspension, increased flow and reduced penetration.

For use as a filler, diatomaceous silica is available in three principal grades: natural (dried), calcined, and processed calcined (fluxed with CaO). Dried earth is grey, tan, cream, or brown. The principal uncalcined earth is 6028 dry. Of higher cost but completely free from grit is 6025 dry, the use of which is ordinarily restricted to very fine polishes.

For white or pale colored products, a snow white flux-calcined material such as 6030 dry is used. Use of processed earth results in lower consistency.

Filter grades of diatomaceous silica are also classified as natural (dried), calcined, and flux-calcined. A coarseness grade is selected which permits the maximum volume of flow while still retaining the required degree of clarity. Preferential use of 6031 dry is recommended.

Santocel colloidal silica (aerogel), produced by chemical treatment of sodium silicate, has an agglomerate particle size of 3 to 7 microns. The extreme porosity of Santocel makes it highly efficient as a flatting agent. A tendency to thixotropy dependent primarily on polarity gives fluid suspensions in polar solvents and very viscous suspensions in non-polar solvents.

The silicas (essentially 99% silicon dioxide), 6005 dry and 6010 dry, are amorphous and crystalline respectively. The former is used in polishes, abrasives, etc., and the latter almost exclusively in wood fillers.