

Ground Calcium Carbonate (GCC)

Nano Calcium Carbonate & Micronized Coated Calcium Carbonate

constituents	Calcia-Nano C	Calcia-5C Surface modified	Calcia 15	
SiO2	00.50	00.50	00.50	
CaCO3	+95	+95	+95	
CaO	53	53	53	
MgO	00.30	00.30	00.30	
Fe2O3	00.08	00.08	00.08	
L.O.I.	43.50	43.50	43.50	
Acid insolubles				
Brightness	+95-99	+95-98	+95-98	
Particle size D50um D97um	See Image @ 300nm	<02.20um <0.6.5um See PSD Graph	5um 15um See PSD Graph	

Calcia- Nano-C particle size image@ 300nm scale

For more details, please send queries to:



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This specification supersedes any former publication and is subject to change without notice.

Particle Size Distributio Graph- Calcia



Sample Name:
Calcium Carbonate - Average

SOP Name:

Measured:
06 October 2010 14:52:47

Sample Source & type:
Mineral technica

Measured by:
applab

Analysed:
06 October 2010 14:52:48

Sample bulk lot ref:

Result Source:
Averaged

Particle Name:
CaCO3

Accessory Name:
Hydro 2000S (A)

Analysis model:
General purpose

Sensitivity:
Normal

Particle RI:
1.680

Absorption:
0.01

Size range:
0.020 to 2000.000 um

Obscuration:
7.76 %

Dispersant Name:
Water

Dispersant RI:
1.330

Weighted Residual:
1.190 %

Result Emulation:
Off

Concentration:
0.0015 %Vol

Span :
1.729

Uniformity:
0.541

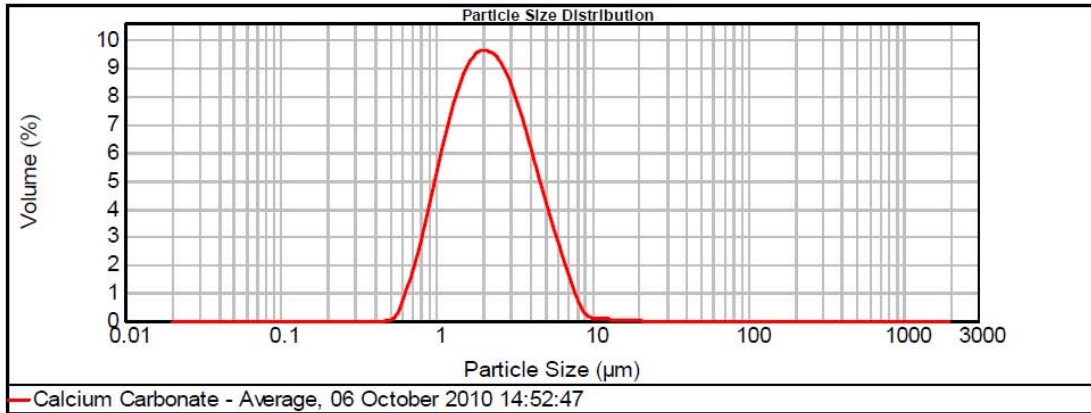
Result units:
Volume

Specific Surface Area:
3.24 m²/g

Surface Weighted Mean D[3,2]:
1.851 um

Vol. Weighted Mean D[4,3]:
2.573 um

d(0.1): 1.023 um d(0.5): 2.141 um d(0.9): 4.726 um



Size (µm)	Vol Under %	Size (µm)	Vol Under %	Size (µm)	Vol Under %	Size (µm)	Vol Under %	Size (µm)	Vol Under %	Size (µm)	Vol Under %
0.010	0.00	0.105	0.00	1.096	12.64	11.482	99.85	120.670	100.00	1258.925	100.00
0.011	0.00	0.120	0.00	1.259	18.80	13.183	99.91	138.038	100.00	1445.440	100.00
0.013	0.00	0.138	0.00	1.445	26.05	15.136	99.95	158.489	100.00	1659.587	100.00
0.015	0.00	0.158	0.00	1.660	34.11	17.378	99.98	181.970	100.00	1905.461	100.00
0.017	0.00	0.182	0.00	1.905	42.64	20.000	100.00	208.930	100.00	2187.762	100.00
0.020	0.00	0.209	0.00	2.188	51.35	22.909	100.00	239.883	100.00	2511.886	100.00
0.023	0.00	0.240	0.00	2.512	59.91	26.303	100.00	275.423	100.00	2884.032	100.00
0.026	0.00	0.275	0.00	2.884	68.02	30.200	100.00	316.228	100.00	3311.311	100.00
0.030	0.00	0.316	0.00	3.311	75.43	34.674	100.00	363.078	100.00	3801.894	100.00
0.035	0.00	0.363	0.00	3.802	81.91	41.430	100.00	416.869	100.00	4365.158	100.00
0.040	0.00	0.417	0.00	4.365	87.36	48.270	100.00	478.630	100.00	5011.872	100.00
0.046	0.00	0.479	0.00	5.012	91.73	52.481	100.00	549.541	100.00	5754.399	100.00
0.052	0.00	0.550	0.04	5.754	95.07	60.256	100.00	630.957	100.00	6606.934	100.00
0.060	0.00	0.631	0.51	6.607	97.45	65.510	100.00	724.436	100.00	7585.776	100.00
0.069	0.00	0.724	1.83	7.586	98.93	76.000	100.00	831.764	100.00	8709.636	100.00
0.079	0.00	0.832	4.16	8.710	99.58	91.201	100.00	954.993	100.00	10000.000	100.00
0.091	0.00	0.955	7.74	10.000	99.75	103.580	100.00	1096.478	100.00		

Operator notes:

Particle Size Distributio Graph- Calcia 15



Sample Name:
Calcium Carbonate Raw - Average

Sample Source & type:
Mineral technica

Sample bulk lot ref:

SOP Name:

Measured by:
aplab

Result Source:
Averaged

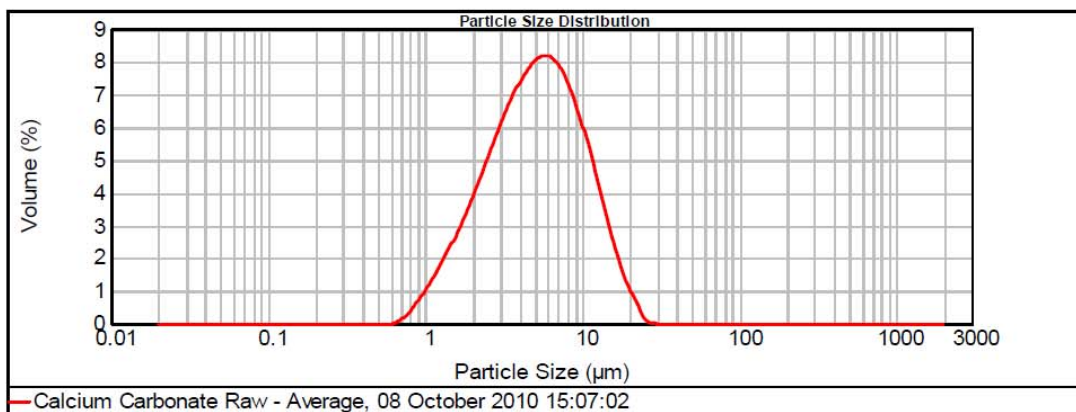
Measured:
08 October 2010 15:07:02

Analysed:
08 October 2010 15:07:03

Particle Name: CaCO3	Accessory Name: Hydro 2000S (A)	Analysis model: General purpose	Sensitivity: Normal
Particle RI: 1.680	Absorption: 0.01	Size range: 0.020 to 2000.000 um	Obscuration: 14.32 %
Dispersant Name: Water	Dispersant RI: 1.330	Weighted Residual: 0.635 %	Result Emulation: Off

Concentration: 0.0067 %Vol	Span : 1.987	Uniformity: 0.616	Result units: Volume
Specific Surface Area: 1.59 m ² /g	Surface Weighted Mean D[3.2]: 3.780 um	Vol. Weighted Mean D[4.3]: 6.143 um	

d(0.1): 1.852 um d(0.5): 5.082 um d(0.9): 11.949 um



Size (µm)	Vol Under %	Size (µm)	Vol Under %	Size (µm)	Vol Under %	Size (µm)	Vol Under %	Size (µm)	Vol Under %	Size (µm)	Vol Under %
0.010	0.00	0.105	0.00	1.096	1.98	11.482	88.73	120.670	100.00	1258.925	100.00
0.011	0.00	0.120	0.00	1.259	3.38	13.183	92.74	138.038	100.00	1445.440	100.00
0.013	0.00	0.138	0.00	1.445	5.26	15.136	95.73	158.489	100.00	1659.587	100.00
0.015	0.00	0.158	0.00	1.660	7.67	17.378	97.79	181.970	100.00	1905.461	100.00
0.017	0.00	0.182	0.00	1.905	10.66	20.000	99.07	208.930	100.00	2187.762	100.00
0.020	0.00	0.209	0.00	2.188	14.28	22.909	99.78	239.883	100.00	2511.886	100.00
0.023	0.00	0.240	0.00	2.512	18.56	26.303	99.99	275.423	100.00	2884.032	100.00
0.026	0.00	0.275	0.00	2.884	23.51	30.200	100.00	316.228	100.00	3311.311	100.00
0.030	0.00	0.316	0.00	3.311	29.13	34.674	100.00	363.078	100.00	3801.894	100.00
0.035	0.00	0.363	0.00	3.802	35.35	41.430	100.00	416.869	100.00	4365.158	100.00
0.040	0.00	0.417	0.00	4.365	42.11	48.270	100.00	478.630	100.00	5011.872	100.00
0.046	0.00	0.479	0.00	5.012	49.26	52.481	100.00	549.541	100.00	5754.399	100.00
0.052	0.00	0.550	0.00	5.754	56.64	60.256	100.00	630.957	100.00	6606.934	100.00
0.060	0.00	0.631	0.00	6.607	64.02	65.510	100.00	724.436	100.00	7585.776	100.00
0.069	0.00	0.724	0.09	7.586	71.16	76.000	100.00	831.764	100.00	8709.636	100.00
0.079	0.00	0.832	0.37	8.710	77.81	91.201	100.00	954.993	100.00	10000.000	100.00
0.091	0.00	0.955	1.00	10.000	83.73	103.580	100.00	1096.478	100.00		

Operator notes:

Applications & usage of Calcium Carbonate powders

Calcite is popularly known as Ground calcium carbonate (GCC). Ground calcium carbonate is used in paint. Coarser grades act as simple fillers and can control gloss, finer grades can be used as extenders. Whiteness, brightness, yellowness are the key factors effecting the values of Carbonate.

Plastics are benefitted due to addition of ground calcium carbonate (GCC), which increases rigidity, transparency, mechanical properties like tensile strength and impact strength. PVC profiles are an example.

The film producers consume fine calcium carbonate to reduce the formulation cost. Calcium carbonate is used to make breathable film for the diaper applications.

Adhesives & sealants use ground calcium carbonates (GCC) to adjust rheological properties and to give the sealant "body", colour. Sealants require a white mineral filler to maintain a white or light colour.

Ground calcium carbonate is used in paper, inks, pharmaceutical, ceramic, foods, cosmetics also.

Mineral Techniq supplies nano, 2um, 5um, 10um as an average particle sized micronized fillers and extenders engineered out of natural ground calcium carbonate powders. We can undertake to produce ground calcium carbonate in sub micronised particle and nano crystalline range.