

Particle Size Analysis Report

ID: 1# Sample: S-A10971-20133-caco3-3-Aver Time: 2025-06-24 20:06:21 Sample Owner:

Physical Characteristic

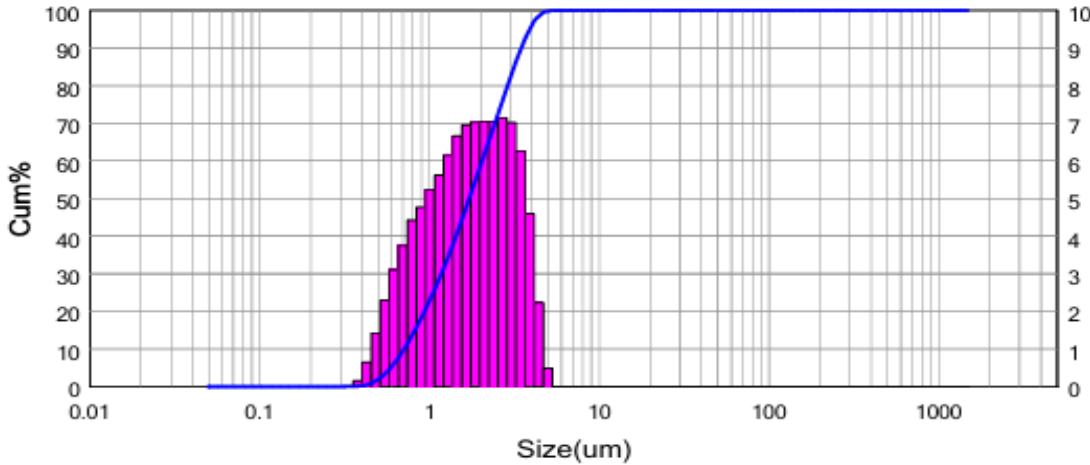
Brightness	97%	Caco3	99.9%
Bulk Density	0.82g/cm3	Cao	56.6%
Moisture	0.02%	Mgo	0.01%

Chemical Analysis

Fe2o3	0.001%
Sio2	0.001%
L.O.I	43.89%

D[4,3]: 1.919 um	D[3,2]: 1.377 um	SSA: 1614 m^2/kg	OBS.: 7.63 %
D[2,1]: 0.988 um	D[1,0]: 0.767 um	SPAN: 1.595	Residual: 3.172 %

D03 = 0.537 um	D06 = 0.618 um	D10 = 0.712 um	D16 = 0.845 um	D25 = 1.055 um
D75 = 2.657 um	D50 = 1.519 um	D90 = 3.455 um	D97 = 4.103 um	D98 = 5.254 um



Diam um	Percent
0.020	0.00
0.050	0.00
0.100	0.00
0.200	0.00
0.500	1.85
1.000	22.67
2.000	62.61
5.000	100.00
10.00	100.00
20.00	100.00

Diam um	Diff%	Cum%	Diam um	Diff%	Cum%	Diam um	Diff%	Cum%	Diam um	Diff%	Cum%
0.050-0.056	0.00	0.00	0.658-0.743	3.75	11.37	8.660-9.791	0.00	100.00	113.9-128.8	0.00	100.00
0.056-0.063	0.00	0.00	0.743-0.841	4.42	15.79	9.791-11.06	0.00	100.00	128.8-145.6	0.00	100.00
0.063-0.071	0.00	0.00	0.841-0.950	4.77	20.56	11.06-12.51	0.00	100.00	145.6-164.7	0.00	100.00
0.072-0.081	0.00	0.00	0.950-1.075	5.23	25.79	12.51-14.14	0.00	100.00	164.7-186.2	0.00	100.00
0.081-0.092	0.00	0.00	1.075-1.215	5.62	31.41	14.14-15.99	0.00	100.00	186.2-210.5	0.00	100.00
0.092-0.104	0.00	0.00	1.215-1.374	6.14	37.55	15.99-18.07	0.00	100.00	210.5-238.0	0.00	100.00
0.104-0.118	0.00	0.00	1.374-1.553	6.66	44.21	18.07-20.44	0.00	100.00	238.0-269.0	0.00	100.00

Adel Abo Elfadl

Manager

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١٧١٠٥٤ - ١٧١٠٥٤

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ARAB CO. FOR TRADE & PACKING LIMESTONE

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Stearic Acid Thermal Analysis

ID: 3091

Time: 2025-06-24 09:07

Sample Owner:

Physical Characteristic

Appearance	White Granules
Titer	105°C
Moisture	0.001%

Chemical Analysis

Acid Value	210Mg KOH/g
Iodine Value	0.65g I/100g
Unsap	0.1%

Stearic acid is commonly used as a surface treatment to improve the hydrophobicity and dispersion of calcium carbonate. This analysis aims to determine the percentage of stearic acid coating by applying thermal treatment and measuring mass loss.

- Dry treatment was performed at 105 °C for 1 hours.
- Thermal treatment was performed at 350 °C for 1 hours and half
- Equipment: Muffle furnace.
- Measurement: Initial sample weight (m_0) and final weight (m_1) recorded.

Results

Initial Weight (g)	Final Weight (g)	Δm (g)	Stearic Acid %
50	49.265	0.735	1.47

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