

**Industrial Lime Extra  
Coarse**

Alden, IA

Ind. Lime Extra Coarse is a coarse particulate CaCO<sub>3</sub> product processed in Alden, IA from quarried high calcium limestone with minimum calcium content of 38%



**Particle Size Measurement -- Laser Diffraction**

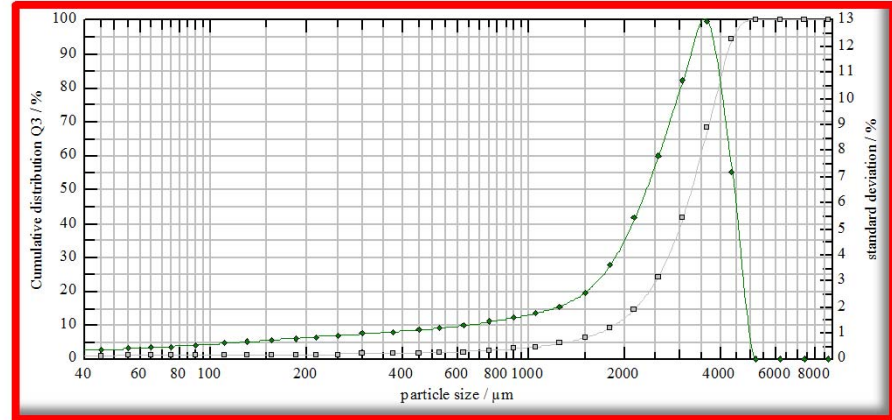
Average Particle Size = **3260.61** microns

Ave particle size: half of the particles are above and half are below this point on the "S" shaped cumulative distribution graph.

**% Ca 39.63**  
**% CaCO<sub>3</sub> 99.08**

Typical Analyses		
Magnesium (Mg)	0.118	%
Silicon (Si)	0.07	%
Silica (SiO <sub>2</sub> )	0.14	%
Iron (Fe)	0.145	%
Sodium (Na)	0.021	%
Potassium (K)	0.009	%
Sulfur (S)	0.888	%
Manganese (Mn)	0.015	%
Phosphorus (P)	0.007	%
Chloride (Cl)	0.004	%
Chromium (Cr)	7	ppm
Aluminum (Al)	107	ppm
Boron (B)	10	ppm
Barium (Ba)	< 5	ppm
Lead (Pb)	< 5	ppm
Nickel (Ni)	< 5	ppm
Cobalt (Co)	< 5	ppm
Copper (Cu)	29	ppm
Zinc (Zn)	118	ppm
Cadmium (Cd)	< 5	ppm
Iodine (I)	2	ppm
Arsenic (As)	< 5	ppm
Beryllium (Be)	< 5	ppm
Selenium (Se)	0.252	ppm
Mercury (Hg)	< 0.050	ppm
Vanadium (V)	< 5	ppm
Molybdenum (Mo)	< 5	ppm
Fluorine (F)	< 1	ppm
Bismuth (Bi)	< 5	ppm
Antimony (Sb)	< 5	ppm

% Acid Solubility	
Average	<b>41.13</b>
Maximum	<b>47.95</b>
Minimum	<b>33.62</b>
H <sub>2</sub> O	< 0.5%
Bulk Density	(lbs./cu.ft.)
Loose:	<b>85</b>
Packed:	<b>91</b>



$\mu\text{m}$  = micron (1/1000 of a millimeter)

Particle Distribution--U.S.Screen Comparison			
4 X 10 mesh product			
Micron Size	U.S.Screen	% Retained	% Passing
6700	<b>3</b>	0.0	100.0
5600	<b>3.5</b>	0.0	100.0
4750	<b>4</b>	3.0	97.0
3350	<b>6</b>	42.4	54.7
2360	<b>8</b>	35.1	19.6
2000	<b>10</b>	7.4	12.2
1700	<b>12</b>	4.1	8.1
1180	<b>16</b>	4.0	4.0
850	<b>20</b>	1.4	2.7
425	<b>40</b>	1.2	1.5
75	<b>200</b>	0.6	0.9
	<b>Pan</b>	0.9	
		100.0	

cumulative distribution (laser diffraction)			
Microns	% Passing	Microns	% Passing
8750	100	525	1.73
7350	100	450	1.57
6150	100	375	1.42
5150	100	300	1.28
4350	94.05	250	1.19
3650	67.88	215	1.13
3050	41.44	185	1.10
2550	24.15	155	1.06
2150	14.56	130	1.03
1800	9.08	110	0.99
1500	6.06	90	0.94
1250	4.39	75	0.90
1050	3.42	65	0.87
900	2.83	55	0.83
750	2.33	45	0.74
625	1.97		