

# Unical-L

cc30

Savage, MN

Unical-L is a large sized granular CaCO<sub>3</sub> product processed in Savage from mined high calcium limestone with minimum calcium content of 38%



## Particle Size Measurement -- Laser Diffraction

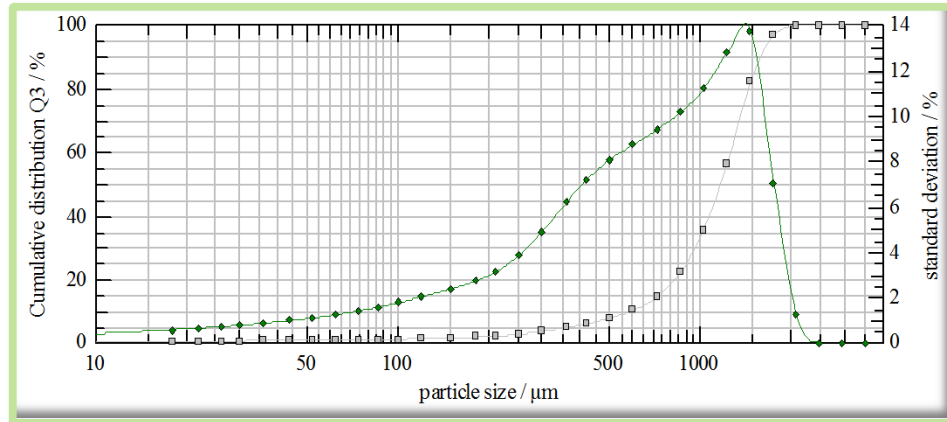
Average Particle Size = **1163.97** microns

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

**% Ca** 38.83  
**%CaCO<sub>3</sub>** 97.08

Typical Analyses		
Magnesium (Mg)	0.869	%
Silicon (Si)	0.55	%
Silica (SiO <sub>2</sub> )	1.18	%
Iron (Fe)	0.279	%
Sodium (Na)	0.019	%
Potassium (K)	0.016	%
Sulfur (S)	0.935	%
Manganese (Mn)	0.031	%
Phosphorus (P)	0.005	%
Chloride (Cl)	0.001	%
Chromium (Cr)	< 5	ppm
Aluminum (Al)	186	ppm
Boron (B)	10	ppm
Barium (Ba)	< 5	ppm
Lead (Pb)	8	ppm
Nickel (Ni)	< 5	ppm
Cobalt (Co)	< 5	ppm
Copper (Cu)	14	ppm
Zinc (Zn)	72	ppm
Cadmium (Cd)	< 5	ppm
Iodine (I)	3	ppm
Arsenic (As)	< 5	ppm
Beryllium (Be)	< 5	ppm
Selenium (Se)	0.202	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>41.68</b>
Maximum	<b>51.51</b>
Minimum	<b>33.66</b>
H <sub>2</sub> O	< 0.5%
Bulk Density (lbs./cu.ft.)	
Loose:	<b>86</b>
Packed:	<b>95</b>



μm = micron (1/1000 of a millimeter)

Particle Distribution--U.S.Screen Comparison			
12 X 40 mesh product			
Micron Size	U.S.Screen	% Retained	% Passing
2000	<b>10</b>	0.9	99.2
1700	<b>12</b>	4.5	94.6
1400	<b>14</b>	18.8	75.8
1180	<b>16</b>	23.6	52.2
1000	<b>18</b>	18.4	33.7
710	<b>25</b>	19.5	14.3
500	<b>35</b>	6.7	7.6
425	<b>40</b>	1.7	5.9
355	<b>45</b>	1.5	4.5
300	<b>50</b>	1.1	3.4
212	<b>70</b>	1.3	2.1
180	<b>80</b>	0.3	1.7
150	<b>100</b>	0.3	1.5
75	<b>200</b>	0.6	0.9
10	<b>Pan</b>	0.9	
		100.0	

cumulative distribution (laser diffraction)			
Microns	% Passing	Microns	% Passing
3500.00	100	210.00	2.04
2940.00	100	180.00	1.73
2460.00	100	150.00	1.48
2060.00	99.72	120.00	1.24
1740.00	96.68	100.00	1.08
1460.00	82.26	86.00	0.97
1220.00	56.39	74.00	0.88
1020.00	35.36	62.00	0.79
860.00	22.36	52.00	0.72
720.00	14.65	44.00	0.66
600.00	10.28	36.00	0.60
500.00	7.62	30.00	0.55
420.00	5.81	26.00	0.52
360.00	4.55	22.00	0.49
300.00	3.39	18.00	0.41
250.00	2.56		