

# Unical-L

Jasper, MO

Unical-L is a large particle sized granular CaCO<sub>3</sub> product processed from quarried high calcium limestone in Jasper, MO with minimum calcium content of 38%



## Particle Size Measurement -- Laser Diffraction

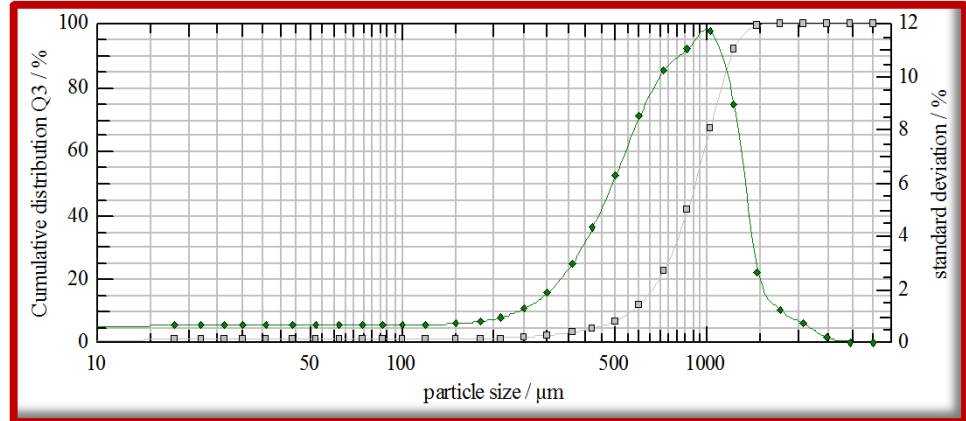
Average Particle Size = **914.61** microns

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

**% Ca** 39.45  
**% CaCO<sub>3</sub>** 98.63

Typical Analyses		
Magnesium (Mg)	0.145	%
Silicon (Si)	0.09	%
Silica (SiO <sub>2</sub> )	0.20	%
Iron (Fe)	0.047	%
Sodium (Na)	0.030	%
Potassium (K)	0.012	%
Sulfur (S)	0.799	%
Manganese (Mn)	0.014	%
Phosphorus (P)	0.004	%
Chloride (Cl)	0.005	%
Chromium (Cr)	6	ppm
Aluminum (Al)	78	ppm
Boron (B)	11	ppm
Barium (Ba)	< 5	ppm
Lead (Pb)	< 5	ppm
Nickel (Ni)	< 5	ppm
Cobalt (Co)	< 5	ppm
Copper (Cu)	7	ppm
Zinc (Zn)	70	ppm
Cadmium (Cd)	< 5	ppm
Iodine (I)	7	ppm
Arsenic (As)	< 5	ppm
Beryllium (Be)	< 5	ppm
Selenium (Se)	0.181	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	45.29
Maximum	49.21
Minimum	42.37
H <sub>2</sub> O	< 0.5%
Bulk Density	(lbs./cu.ft.)
Loose:	84
Packed:	94



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

Particle Distribution--U.S. Screen Comparison			
14 X 45 mesh product			
Micron Size	U.S. Screen	% Retained	% Passing
2000	10	0.1	99.9
1700	12	0.2	99.8
1400	14	2.5	97.3
1180	16	10.5	86.8
1000	18	22.9	63.9
710	25	42.3	21.6
500	35	14.9	6.8
425	40	2.3	4.5
355	45	1.5	3.0
300	50	0.9	2.1
212	70	0.9	1.2
180	80	0.2	0.9
150	100	0.1	0.8
75	200	0.1	0.7
10	Pan	0.7	
		100.0	

cumulative distribution (laser diffraction)			
Microns	% Passing	Microns	% Passing
3500	100	210	1.13
2940	100	180	0.93
2460	99.99	150	0.81
2060	99.94	120	0.73
1740	99.88	100	0.70
1460	99.18	86	0.68
1220	91.77	74	0.68
1020	67.09	62	0.68
860	41.48	52	0.67
720	22.50	44	0.67
600	11.82	36	0.67
500	6.75	30	0.66
420	4.32	26	0.66
360	3.04	22	0.66
300	2.07	18	0.62
250	1.47		