

# Unical-P

Jasper, MO

Unical-P is a finely ground  $\text{CaCO}_3$  product processed from quarried high calcium limestone in Jasper, MO with minimum calcium content of 38%



## Particle Size Measurement -- Laser Diffraction

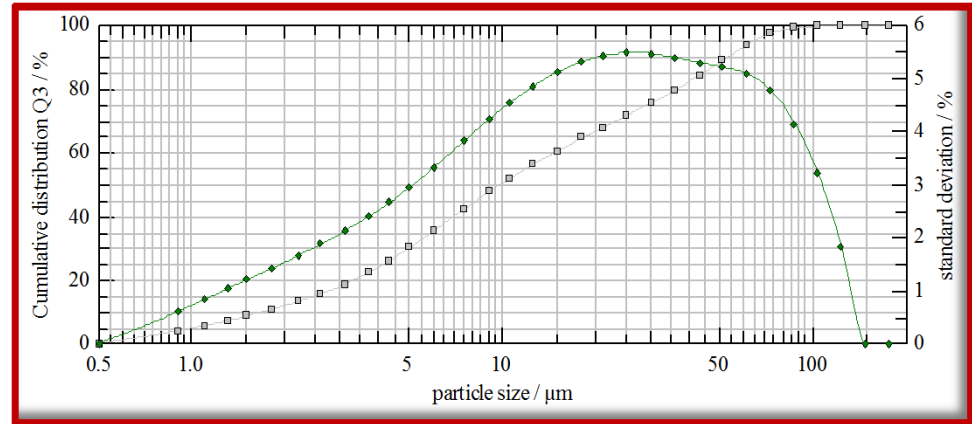
Average Particle Size = **10.48** microns

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

**% Ca**            **39.05**  
**%  $\text{CaCO}_3$**     **97.63**

Typical Analyses		
Magnesium (Mg)	0.145	%
Silicon (Si)	0.09	%
Silica ( $\text{SiO}_2$ )	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	<b>72.44</b>
Maximum	<b>76.05</b>
Minimum	<b>68.55</b>
H <sub>2</sub> O	< 0.5%
Bulk Density (lbs./cu.ft.)	
Loose:	<b>77</b>
Packed:	<b>87</b>



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

Particle Distribution--U.S. Screen Comparison			
Minus 100 mesh product			
Micron Size	U.S. Screen	% Retained	% Passing
300	<b>50</b>	0.0	100.0
212	<b>70</b>	0.0	100.0
180	<b>80</b>	0.0	100.0
150	<b>100</b>	0.0	100.0
75	<b>200</b>	2.4	97.6
45	<b>325</b>	12.3	85.3
38	<b>400</b>	4.4	80.9
25	<b>500</b>	9.4	71.5
13	<b>1000</b>	15.5	56.1
6	<b>2300</b>	20.8	35.3
2.5	<b>Pan</b>	35.3	
		100.0	

cumulative distribution (laser diffraction)			
Microns	% Passing	Microns	% Passing
175	100	10.5	51.64
147	100	9	47.47
123	99.69	7.5	42.15
103	99.44	6	35.33
87	99.15	5	29.97
73	97.36	4.3	25.89
61	93.57	3.7	22.28
51	88.77	3.1	18.64
43	84.12	2.6	15.61
36	79.63	2.2	13.16
30	75.43	1.8	10.62
25	71.46	1.5	8.60
21	67.73	1.3	7.17
18	64.43	1.1	5.62
15	60.37	0.9	3.94
12.5	56.06		