MESH TO MICRON CONVERSION CHART

U.S. MESH	INCHES	MICRONS	MILLIMETERS
3	0.2650	6730	6.730
4	0.1870	4760	4.760
5	0.1570	4000	4.000
6	0.1320	3360	3.360
7	0.1110	2830	2.830
8	0.0937	2380	2.380
10	0.0787	2000	2.000
12	0.0661	1680	1.680
14	0.0555	1410	1.410
16	0.0469	1190	1.190
18	0.0394	1000	1.000
20	0.0331	841	0.841
25	0.0280	707	0.707
30	0.0232	595	0.595
35	0.0197	500	0.500
40	0.0165	400	0.400
45	0.0138	354	0.354
50	0.0117	297	0.297
60	0.0098	250	0.250
70	0.0083	210	0.210
80	0.0070	177	0.177
100	0.0059	149	0.149
120	0.0049	125	0.125
140	0.0041	105	0.105
170	0.0035	88	0.088
200	0.0029	74	0.074
230	0.0024	63	0.063
270	0.0021	53	0.053
325	0.0017	44	0.044
400	0.0015	37	0.037

Mesh Sizes and Microns

What does mesh size mean? Figuring out mesh sizes is simple. All you do is count the number of openings in one inch of screen (in the United States, anyway.) The number of openings is the mesh size. So a 4 mesh screen means there are four little squares across one linear inch of screen. A 100 mesh screen has 100 openings, and so on. Note, therefore that as the number describing the mesh size increases, the size of the particles decreases. Higher numbers = finer powder. Mesh size is not a precise measurement of particle size. Screens can be made with different thicknesses of wire. The thicker the wires, the smaller the particle passing through that screen, and vice versa.

What do the minus (-) and plus (+) plus signs mean when describing mesh sizes? Here's a simple example of how they work. –200 mesh aluminum would mean that all particles will pass through a 200 mesh screen. A +200 mesh aluminum means that all the particles are retained on a 200 mesh screen

How fine do screens get? That depends on the wire thickness. But the supplier of our screens does not offer any screens finer than 500 mesh. If you think about it, the finer the weave, the closer the wires get together, eventually leaving no space between them at all. So, beyond 325-400 mesh, we usually describe particle size in "microns."

What is a micron? A micron is another measurement we use for measuring particle size. A micron is one-millionth of a meter or one twenty-five

thousandth of an inch.

This table is adapted from a post made by Ken Kosanke to the PML and previously published in a PGII Bulletin.

U.S. Standard * Sieve Mesh No.	Space between wires Inches	Microns**	Typical material
14	0.056	1400	
28	0.028	700	Beach sand
60	0.0098	250	Fine sand
100	0.0059	150	
200	0.0030	74	Portland cement
325	0.0017	44	Silt
400	0.0015	37	Plant Pollen
(1200)	0.0005	12	Red Blood Cell
(2400)	0.0002	6	
(4800)	0.0001	2	Cigarette smoke

* The mesh numbers in parentheses are too small to exist as actual screen sizes; they are estimated and included just for reference

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