



Particle Mesh Size Easily Converts to Average Particle Diameter

Particle Size Conversion

Sieve Designation		Nominal Sieve Opening		
<i>Standard</i>	<i>Mesh</i>	<i>inches</i>	<i>mm</i>	<i>Microns</i>
420 μm	No. 40	0.0165	0.42	420
354 μm	No. 45	0.0139	0.354	354
297 μm	No. 50	0.0117	0.297	297
250 μm	No. 60	0.0098	0.25	250
210 μm	No. 70	0.0083	0.21	210
177 μm	No. 80	0.007	0.177	177
149 μm	No. 100	0.0059	0.149	149
125 μm	No. 120	0.0049	0.125	125
105 μm	No. 140	0.0041	0.105	105
88 μm	No. 170	0.0035	0.088	88
74 μm	No. 200	0.0029	0.074	74
63 μm	No. 230	0.0025	0.063	63
53 μm	No. 270	0.0021	0.053	53
44 μm	No. 325	0.0017	0.044	44
37 μm	No. 400	0.0015	0.037	37

Particle diameter is a familiar way of describing particle size. Mesh size is simply another way of describing particle size.

There are many larger mesh sizes such as no. 270 mesh which is about 53 μm or no. 40 mesh which is about 420 μm . The list above is the applicable range that we typically work near.

Mesh designation is a sieve "mesh" size that corresponds to the size of the opening in inches for larger sieves. Smaller sieve "mesh" sizes of 40 to 400 are designated by the number of openings per linear inch in the sieve.

Typically greater than 90% of the particles will lie within the indicated range.

Nearly 100% of the time regarding sample preparation you will see a mesh size range like for the larger less expensive media such as Alumina and Florisil which are typically 60/120 mesh or about 125-250 μm in particle diameter.

Use this conversion chart to approximate equivalent particle diameter and mesh size for sample preparation media.

Key words: mesh size, particle diameter, particle size conversion