



## Mesh Size

The term 'Mesh' is used to describe the size of an abrasive particle. In some instances, such as with Aluminum Oxide Grit or Silicon Carbide Grit, a single number is used. This does not mean every particle in that product is exactly that size but rather than mesh size indicator is approximately the mean or average size of the range of particles in that grade. In other instances, such as with Walnut Shell Grit or Glass Beads, two numbers are used. This indicates that all of the particles in that grade of product are within that range of mesh sizes.

Contained below is more detail about Mesh size, how that is related to the grit size, and what these terms mean as it relates to abrasive (and non-abrasive) products.

## What is Mesh Size?

U.S. Mesh Size (or U.S. Sieve Size) is defined as the number of openings in one square inch of a screen. For example, a 36 mesh screen will have 36 openings while a 150 mesh screen will have 150 openings. Since the size of screen (one square inch) is constant, the higher the mesh number the smaller the screen opening and the smaller the particle that will pass through. Generally US Mesh is measured using screens down to a 325 mesh (325 openings in one square inch).

Sometimes the mesh size of a product is noted with either a minus (-) or plus (+) sign. These signs indicate that the particles are either all smaller than (-) or all larger than (+) the mesh size. For example, a product identified as -100 mesh would contain only particles that passed through a 100 mesh screen. A +100 grade would contain particles that did not pass through a 100 mesh screen. When a grade of product is noted with a dash or a slash it indicates that the product has particles contained within the two mesh sizes. For example, a 30/70 or 30-70 grade would only have particles that are smaller than 30 mesh and larger than 70 mesh.

## Mesh vs. Grit

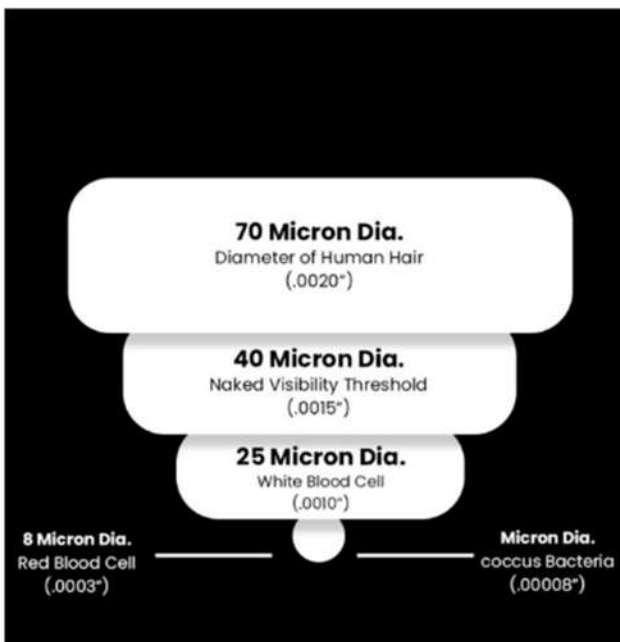
The terms Mesh and Grit are often confused. The terms can be used interchangeably when referring to abrasive grit. A 60 mesh Aluminum Oxide can also correctly be termed a 60 grit Aluminum Oxide. In practical terms, identifying a specific abrasive product with the term 60 Mesh would normally indicate that the product has a median size of the openings on a 60 mesh screen. The term 60 Grit more accurately identifies the particle size distribution of the product but the difference in terminology is insignificant for industry purposes. See our blog post [Mesh vs. Grit](#) for more detail.

## Mesh Conversion Chart

The chart below shows the approximate size in inches and microns for various mesh sizes. These values are generally accepted as accurate but are approximates because the thickness of the wire used to make a specific screen will vary the number of openings in the one square inch. A micron is one-millionth of a meter or one-twenty-five thousandths of an inch. Most grades below 325 mesh are indicated by the micron size as these sizes are not manufactured using screens.

US Mesh	Micron	Inches
4	4,750 um	0.187
5	4,000 um	0.157
6	3,350 um	0.132
7	2,800 um	0.111
8	2,360 um	0.0937
10	2,000 um	0.0787
12	1,700 um	0.0661
14	1,400 um	0.0555
16	1,200 um	0.0473
18	1,000 um	0.0394
20	850 um	0.0331
24	690 um	0.027
30	560 um	0.022
36	485 um	0.019
40	425 um	0.016
46	355 um	0.014
54	305 um	0.012
60	250 um	0.01
70	210 um	0.0083
80	165 um	0.0065
90	145 um	0.0057
100	149 um	0.0059
120	125 um	0.0049

140	105 um	0.0041
150	89 um	0.0035
170	88 um	0.0031
180	76 um	0.003
200	75 um	0.0029
220	63 um	0.0025
240	53 um	0.002
280	44 um	0.0015
320	36 um	0.0012
400	23 um	0.00087
500	19 um	0.00075
600	16 um	0.00063
800	12 um	0.00047
1,000	9 um	0.00028
1,200	6 um	0.00024



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