

# FILTER GRADE POWDERS

## TECHNICAL DATA SHEET



Our filter grade powders are water atomized for precise liquid and gas filtration. We are experts in achieving narrow particle size ranges and desired shapes. No company offers more water atomized alloys than us - in more than 25 particle sizes.

### 50 YEARS FILTER POWDER EXPERTISE

We produce water atomized powders for the manufacture of sintered metal filters used in critical filtration and flow control systems. Our metallurgists have extensive experience in controlling:

- Chemistry
- Particle size distribution (PSD)
- Morphology / Apparent Density

This allows the filter producer to design custom pore sizing and precise flow restriction to exacting specifications. We support customers in advanced materials selection and offerings for the development of next gen filters.

### GRADES AND SIZES

- Grades: 316L, Hastelloy® (C-22, C-276, C, B, X), iron aluminides (FAS), Ni-200, and Inconel® (IN-600, IN-625). The fluid medium (corrosiveness) of the target environment and targeted flow rates will influence material choice
- Sizes: Available in more than 25 different particle "cuts" from coarse 20 mesh to fine 10 micron sizes with tightly controlled ranges

### 316L TYPICAL APPARENT DENSITY (AD) AND TYPICAL GREEN STRENGTH (GS)

Size	AD (g/cc)	GS (psi)	Press
18/25	1.6	3400	@ 15 TSI
20/30	1.7	3300	@ 15 TSI
50/70	1.9	1700	@ 15 TSI
50/100	2.1	1400	@ 15 TSI
100/140	2.3	2100	@ 25 TSI
100/170	2.3	1900	@ 25 TSI
120/200	2.4	1700	@ 25 TSI
140/200	2.4	1400	@ 25 TSI
170/230	2.4	1500	@ 25 TSI
200/325	2.5	1100	@ 25 TSI
325/500	2.6	1300	@ 35 TSI

Contact us for more information about our high GS powder filter products.

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### ADVANTAGES

- High irregular morphology makes powders uniquely suited for precise filtration
- Low AD powders are necessary to press parts to lower densities than traditional P/M. Our highly irregular powder confers a higher level of strength at lower Green Density which allows the green parts to be handled without damaging them
- Product breadth: Widest range of grades and Particle Size Distribution (PSD) control (cuts)
- Short lead times and small minimum order quantities

### CHEMICAL PROCESSING

We offer advanced stainless steel and nickel alloys for precision chemical filtration in extremely corrosive environments. Our powders are engineered for excellent corrosion and temperature resistance with supreme physical durability.

### MEDICAL

Our sintered porous metal filter powders are typically used within critical flow control and filtration components in ventilator units that ultimately save lives.

The filter powders operate in the porous flow restrictors that control the ventilator oxygen flow where they need to withstand high pressures while remaining clog-free.

Other global industries that use our filter powder include Automotive, Industrial, Pharmaceutical and Semiconductor production.



Mesh	Micron	Mesh	Micron	Mesh	Micron
-10/+20	-2000/+850	-35/+45	-500/+355	-100/+200	-150/+75
-10/+25	-2000/+710	-40/+60	-425/+250	-120/+200	-125/+75
-18/+20	-1000/+850	-45/+60	-355/+250	-140/+200	-105/+75
-18/+25	-1000/+710	-40/+80	-425/+180	-140/+230	-105/+63
-20/+30	-850/+600	-50/+70	-300/+212	-170/+270	-90/+53
-20/+35	-850/+500	-50/+80	-300/+180	-170/+325	-90/+45
-20/+40	-850/+425	-50/+100	-300/+150	-200/+325	-75/+45
-25/+40	-710/+425	-60/+80	-250/+180	-230/+400	-63/+38
-25/+50	-710/+300	-60/+100	-250/+150	-325/+500	-45/+25
-30/+40	-600/+425	-70/+100	-212/+150	-325	-45
-30/+45	-600/+355	-80/+120	-180/+125	-500	-25
-30/+50	-600/+300	-100/+140	-150/+105	-635	-20
-30/+60	-600/+250	-100/+170	-150/+90	N/A	-10



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