

## Filtering



## Melt & Polymer Filters

Melt & polymer filters, also known as polymer filters or melt filters, are filter elements used for the production of high performance polymer fibers, films and resins. It is widely used in various polymer process filtration and separation applications.

Of which, candle filters and filter discs are key part of the melt & polymer filter as it determines the quality of the final products. Made of stainless steel, we offer pleated candle filters and filter discs for your option to adapt to different working conditions and meet your specific performance requirements for melt & polymer filtration.

### Benefits for sieving

- ✓ Stainless steel wire cloth is available in various mesh patterns, including square weave, twilled dutch weave, plain dutch weave
- ✓ A full range of mesh opening sizes are available to meet different filtration demands.
- ✓ Easy cleanable by conventional chemical cleaning
- ✓ High temperature & high pressure resistance
- ✓ Easy to clean and enjoy a long service life

### Pleated Candle Filter

Pleated candle filters is a kind of fabricated multi-layer candle filter for polymer processing and extrusion. Manufactured from stainless steel, our pleated candle filter is designed to withstand the rigorous requirements of polymer processing.



#### Specification

- Material: stainless steel 304, 316, 316L
- Filter medium: stainless steel wire cloth
- Micro rating: 2–840  $\mu\text{m}$
- Inside diameter: 1-1/16" (27 mm)
- Outside diameter: 2-5/8" (67 mm)
- Grommet
  - Inside diameter: 1-1/16" (27 mm)
  - Outside diameter: 1-7/8" (48 mm)
- Nominal length: 4" (102 mm), 9.75" (248 mm), 10" (254 mm), 19.5" (495 mm), 20" (508 mm), 30" (745 mm), 40" (1016 mm)
- Flow rate: 10 gpm (38 lpm) per 10 inch
- Effective filtration area: 1.7 ft<sup>2</sup>/10 inch length (1580 cm<sup>2</sup>/254 mm)
- Maximum differential pressure: 20.7 bar
- Maximum working temperature: 300 °C
- Construction method: welded and crimped (no adhesives)

Nominal Micrometer Rating ( $\mu\text{m}$ )	Mesh Count (per inch)	Percent Open Area (%)
2	325 × 2300	NA
5	200 × 1400	NA
10	165 × 1400	NA
20	200 × 600	NA
40	120 × 400	NA
75	190 × 200	35
100	30 × 150	31
150	90 × 100	33
190	70 × 80	35
230	50 × 60	41
280	40 × 50	35
370	40 × 40	36
540	30 × 30	45
840	20 × 20	52

### Filter Discs

Filter disc is a kind of flat filter element that is widely used in is polymer processing and melt filtration applications. Our filter discs are made of stainless steel wire cloth in single layer or multi-layers. All woven wire meshes can be used to produce a filter disc, from the finest twilled dutch weave to highly robust square meshes to meet different filtration demands.

#### Specification

- Material: 302, 304, 304L, 316, 316L
- Shape: circle, disc, square, oval, rectangular, kidney, cones and other special shape
- Weave type: Plain & twill weave
- Frame: with or without frame, spot welding
- Disc diameter: 20–900 mm
- Micron rating: 2–300  $\mu\text{m}$



Mesh	Wire Diameter (mm)	Aperture Size (mm)	Open Area (%)
10 × 10	0.711	1.829	51.8
14 × 14	0.457	1.357	55.9
16 × 16	0.457	1.131	50.7
20 × 20	0.457	0.813	41.0
24 × 24	0.376	0.682	41.4
30 × 30	0.376	0.531	34.2
30 × 30	0.310	0.536	40.0
40 × 40	0.274	0.361	32.3
50 × 50	0.193	0.335	43.6
60 × 60	0.193	0.230	29.8
80 × 80	0.122	0.196	37.9
100 × 100	0.102	0.152	36.0
120 × 120	0.091	0.120	31.8
150 × 150	0.071	0.088	29.6
200 × 200	0.050	0.077	36.76
300 × 300	0.040	0.045	27.83
325 × 325	0.035	0.043	30.49
400 × 400	0.028	0.036	31.25
500 × 500	0.025	0.026	25.79