# Microfine ExPleat PP Series Cartridges

Pleated Polypropylene Media Cartridges for Cost Effective Filtration





ExPleat PP cartridges are are designed for general purpose use wherever a cost effective pleated filter is required. The multi-layer polypropylene media provides absolute particle retention. With its Extended Pleat structure, ExPleat PP cartridge filters has high dirt holding capacity and long service life. Moreover these cartridges are also available in pleated depth media for high viscosity fluids.

#### Construction Materials

Ochoti detien Materials			
Filtration Media	Pleated Polypropylene Depth Media		
Media Support	Polypropylene		
End Caps	Polypropylene		
Center Core	Polypropylene		
Outer Support Cage	Polypropylene		
Sealing Method	Thermal Bonding		
O-rings	Buna, Viton® (or FKM), EPDM, Silicone, FEP Encapsulated Viton (or FKM)		

# **Applications**

- Inks & Dyes
  - Dyes Air and Gases
- Cosmetics
- Process Water
- Specialty Chemicals

#### **Dimensions**

 Length
 9.75" to 40 in. (23 to 101.6 cm) nominal

 Outside Diameter
 2.75 in. (6.9 cm) nominal

### **Maximum Operating Parameters**

#### **Differential Pressure**

Forward

20 psid (1.4 bard) at 90 °C (194 °F) 40 psid (2.8 bard) at 60 °C (140 °F)

70 psid (4.8 bard) at 20 °C (68 °F)

**Operating Temperature** 

90 °C (194 °F) (0.69 bard)

in water

Recommended
Changeout Pressure

35 psid (2.4 bard)

#### Sanitization/Sterilization

Filtered Hot Water	90 °C (194 °F), 30 minutes, multiple cycles, max 3 psid forward flow
Autoclave	121°C (250°F), 30 min, multiple cycles
In-line Steam	135°C (275°F), 30 min, multiple cycles

For all elevated temperature procedures above, a stainless steel support ring is required.

#### **Chemical Sanitization**

Performed using industry standard concentrations of hydrogen peroxide, paracetic acid, sodium hypochlorite and other selected chemicals.

# **Total Performance**

Microfine Filters is a manufacturer of filtration products to industries in which filtration is considered a critical part of the manufacturing process. We supply a complete line of products and services to help you cost effectively satisfy all your filtration requirements from a single source.

## FDA and EC Compliance

All Microfine Filter cartridge filters are designed to meet the FDA requirements for processing food and beverage products. The materials used to construct NPP filters are listed by the FDA for use in articles intended for repeated food contact as specified in Title 21 CFR sections 174.5, 177.1500, 177.1520, 177.1630, 177.2440 and 177.2600 as appropriate. NPP filters comply with Title 21 CFR sections 210.3 (b)(6) and 211.72, for non-fiber releasing filters. All materials used to make the filters are listed in European Commission Regulation EU/10/2011, Annex 1.

#### Flow Rate vs Differential Pressure

The Flow Rates vs Differential table represents typical pressure drop at 5 gallons per min flow across a single 10 in. cartridge element. The test fluid is water at ambient temperature. Extrapolation for housings with multiple elements and higher pressure drops is acceptable, but as flows increase the pressure drop of the housing becomes more apparent.

**Typical Flow Rates Vs Differential Pressure** 

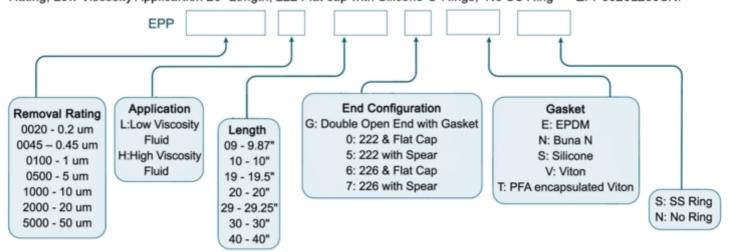
Micron Rati	ing	0.2 μm	0.45 μm	1.0 µm	5.0 μm	10.0µm	25.0 μm	50.0 μm
Differential	psid	0.85	0.65	0.54	0.43	0.38	0.28	0.26
Pressure	mbard	58.83	45.11	37.27	29.42	26.48	19.61	17.65

## Initial Particle Removal Efficiency

Filter	Removal Effeciency	Partical Size		
	>90%	>99.9%		
EPP0020	NA	0.2 um		
EPP0045	0.4 um	0.5 um		
EPP0100	0.7um	1.0 um		
EPP0500	1.5 um	5.0 um		
EPP1000	8.0 um	10.0 um		
EPP2000	10.0 um	20.0 um		
EPP5000	20.0 um	50.0 um		

#### Ordering Guide

Cartridge order numbers have several variables from pore size to end cap type. For example Pleated PP media, 0.2 Micron Rating, Low Viscosity Application 20" Length, 222 Flat cap with Silicone O-Rings, No SS Ring = EPP0020L200SN.





#### Microfine Filters

For Technical queries, please drop us an email at: technical@microfinefilters.com.tw

For all matters related to sales or distributorship please contact us at: sales@microfinefilters.com.tw

For more details visit our website: www.microfinefilters.com.tw