Microfine ExPleat PSA Series Cartridges

Highly Asymmetric Polyethersulfone Media Cartridges for Superior Filtration





ExPleat PSA Series membrane filters are designed for ultra high purity DI water and chemical filtration applications where very fine removal ratings and high flow rates are required. The Extended Pleat design along with a highly asymmetric Polyethersulfone membrane provides very low pressure drop and long service life of filters.

Construction Materials

Filtration Media	Asymmetric Polyethersulfone (PES) Membrane			
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)			

Dimensions

Length	9.75 in to 40 in.(24.8 to 101.6 cm) nominal				
Outside Diameter	2.75 in. (6.9 cm) nominal				
Filtration Area	6.0 ft2 (0.55 m2) and 9.0 ft2 (0.80 m2) per 10 in. length				

Applications

- Process Water
- Chemicals
- DI Water
- Cosmetics
- Inks and Dyes
- HDD Part Washing
- Bioburden Reduction

Integrity Test Information

Representative samples from each manufacturing lot are tested for integrity to ensure consistent performance. 100% integrity testing for critical applications is also available.

Maximum Operating Parameters

Differential Pressure Forward	24 psid (1.7 bard) at 80 °C (176 °F) 78 psid (5.4 bard) at 20 °C (68 °F
Operating Temperature	80 °C (176 °F)
Recommended Changeout Pressure	35 psid (2.4 bard)

Sanitization/Sterilization

Filtered Hot Water	80 °C (176 °F), 30 minutes, 30 cycles, max 3 psid forward flow					
Autoclave	121 °C (250 °F), 30 min, 10 cycles					
In-line Steam	121 °C (250 °F), 30 min, 10 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.

Available Rinse Options

Standard	No Rinse
Pre-Flushed	Rinsed with surfactant-Silicone free
Pre-Rinsed	Rinsed with 18 M ohm water

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.

Quality Assurance and Standards

Our goal is to ensure our customers the greatest possible value for their filtration dollar. Our state of the art manufacturing facility and quality management system both meet ISO 9001:2008 standards. Each operation from assembly and test to cleaning, drying, and packaging is done in appropriately rated clean rooms.

Flow Rate vs Differential Pressure

The Flow Rates vs Differential table represents typical pressure drop at 8 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

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

Micron Rating		0.04 μm	0.10 µm	0.20 μm	0.45 μm	0.65 µm	1.20 µm	
Differential Pressure Extend Area	Standard	psid	7.68	3.70	2.05	1.07	0.43	0.30
	Cartridge	bard	0.53	0.25	0.14	0.07	0.03	0.02
	Extended Area Cartridge	psid	6.25	3.0	1.85	0.85	0.36	0.28
		bard	0.43	0.21	0.13	0.06	0.03	0.02

Ordering Guide

Cartridge order numbers have several variables from pore size to end cap type. For example Asymmetric PES Membrane, 0.2 Micron Rating, 20" Length, 222 Flat cap with Silicone O-Rings, No Rinse and Standard Surface Area, = SA002200SSN

