

PN Pleated Filters



Flotrex-PN (FPN) filters are constructed with gradient density, thermally bonded polypropylene microfiber media for exceptional dirt holding capacity, long life and consistent particle retention.

■ Features and Benefits

The Flotrex PN (FPN) filters offer an economical solution for your filtration needs. The all polypropylene construction of the FPN filters ensures superior chemical compatibility and low extractables in a wide variety of fluids and applications. The gradient density, thermally bonded polypropylene media has excellent dirt holding capacities, reliable retention characteristics, and do not release fibers. Constructed in a clean room environment using thermal welding techniques, the FPN filters do not contain any adhesives or additives.

Osmonics is your complete source for filters, housings, and other filtration equipment. Our extensive portfolio includes filters for every stage of processing, and we can offer custom solutions for your unique applications.

■ Applications

FPN filters are an economical alternative to membrane filters in a broad range of applications, including:

- Filtration of liquid polymers, coatings, and inks
- Beer trap filtration
- Pre-filtration to protect expensive final filters
- Filtration of bulk chemicals
- Post Carbon bed and DI bed filtration

■ Available Nominal Pore Size Ratings, FPN filters

- 0.2, 0.45, 0.65, 1, 2, 3, 5, 10, 20, 30, 40 μm

■ Materials of Construction

- Filtration MediaPolypropylene Microfiber
- Support LayersPolypropylene Microfiber
- Core and CagePolypropylene
- Endcaps and AdaptersPolypropylene

■ Dimensions

Filter Model	Nominal O.D.	Nominal I.D.	Effective Filtration Area
■ FPN92	2.75" (70mm)	1.25" (31mm)	4.4 ft ² (0.41 m ²)
■ FPN94, FPN96 FPN03, FPN05	2.75" (70mm)	1.25" (31mm)	5.5 ft ² (0.51 m ²)
■ FPN01, FPN10, FPN30 FPN40	2.75" (70mm)	1.25" (31mm)	6.1 ft ² (0.57 m ²)

Retention Characteristics

Based on ASTM F795 and F661 test methods, the Flotrex-PN filters typically exhibit the following filtration efficiencies.

Particle Size	40%-50% filtration efficiency	80%-90% filtration efficiency	99.9% filtration efficiency
0.2 µm	FPN92		Please refer to our
0.45 µm	FPN94		Memtrex filters
0.65 µm	FPN99		
1.0 µm	FPN01		
2.0 µm	FPN02	FPN92	
3.0 µm	FPN03	FPN94	FPN92
5.0 µm	FPN10	FPN05	FPN94
10.0 µm		FPN10	FPN05
20.0 µm		FPN30	FPN10
30.0 µm	Please refer to		FPN30
40.0 µm	our Hytrex filters		FPN40

Operational Limits

- Maximum Forward Differential Pressure....60 psi (4.14 bar)
- Maximum Reverse Differential Pressure....30 psi (2.07 bar)
- Maximum Operating Temperature.....180°F (82°C) at 10 psid (0.69 bar) in water

Sterilization

Flotrex-PN filters may be autoclaved (121°C, 30 minute cycles) or in situ steam sterilized (125°C, 30 minute cycles) for a maximum accumulated exposure of 10 hours. Alternatively, the filters may be sanitized with compatible chemical agents.

Ordering Information

Type	Nominal Micron Rating	Nominal Cartridge Length	End #1 Adapter	End #2 Adapter	Elastomer Material
FPN	92 = 0.2 µm 94 = 0.45 µm 96 = 0.65 µm 01 = 1.0 µm 02 = 2.0 µm 03 = 3.0 µm 05 = 5.0 µm 10 = 10.0 µm 20 = 20.0 µm 30 = 30.0 µm 40 = 40.0 µm	1 = 10 Inch 2 = 20 Inch 3 = 30 Inch 4 = 40 Inch	A = Open End Gasket B = 120 O-Ring C = 213 O-Ring E = 222 O-Ring F = 226 O-Ring J = 020 O-Ring Q = 222 O-Ring Stainless Steel Insert Z = 226 O-Ring Stainless Steel Insert	A = Open End with Gasket B = 120 O-Ring C = 213 O-Ring G = Closed End Cap H = Fin	B = Buna-N E = EPDM S = Silicone T = Teflon* Encapsulated V = Viton*

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For More Information:

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Biosafety

The component materials of Flotrex-PN filters are suitable for use in articles intended for repeated food contact as specified in the United States Code of Federal Regulations, Title 21. Flotrex-PN filters meet the test criteria for USP24 Class VI-121°C Plastics and pass the MEM Elution Cytotoxicity Test.

Extractables

Aqueous extracts from Flotrex-PN filters contain less than 0.25 EU/ml. The filters typically exhibit low levels of non-volatile residues.

Flow Performance in Clean Water

