

NANOCERAM[®] "P" SERIES PLEATED FILTER CARTRIDGES

Leaflet E-26-01-UK



FLUXA

Fluxa
Filtri
S.p.A.

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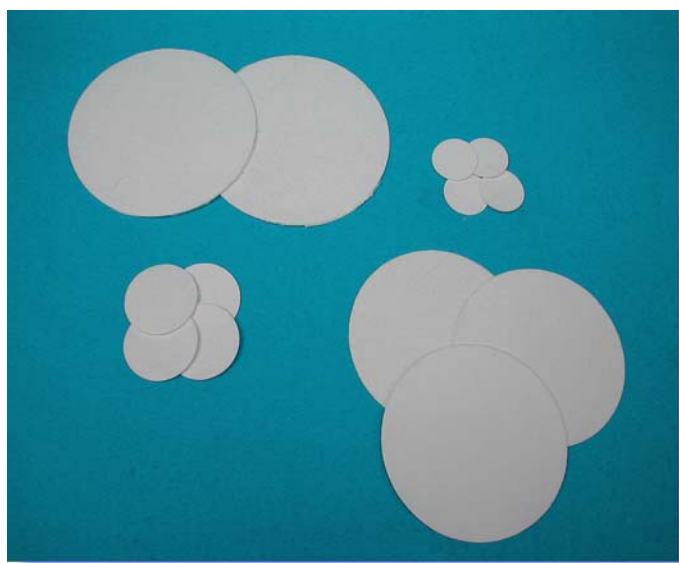
Features and Benefits

Thermally bonded blend of microglass fibers & cellulose infused with nanoalumina fibers in a non-woven matrix creates an electropositively-charged depth filter media. When assembled into a pleated cartridge, NANOCERAM[®] offers a unique combination of efficiency, capacity, flowrate & low pressure drop at levels unmatched in today's filtration marketplace. In addition, all NANOCERAM[®] filter cartridges are assembled from only FDA-compliant materials.

- Silt Density Index (SDI): ≤ 0.5
- Turbidity Reduction: < 0.01 NTU until terminal pressure drop (40 psi)
- Low ΔP : < 1.5 psi @ 4gpm (Part No. P2.5-10)
- Efficiency: 99.9% reduction of 0.2μ particulate (monodispersed latex spheres)
- Flow Rate: $5\text{mL}/\text{cm}^2/\text{min}$ @ 4gpm (Part No. P2.5-10)
- Dirt Holding Capacity (DHC): $572\text{ mg}/\text{in}^2$ (A2 Fine Test Dust)
- Cyst Retention: > 5 LRV
- Bacteria (*Klebsiella terrigena*): > 5 LRV
- Temperature Range: 39 - 135° F (4 - 57°C)
- Maximum Pressure: 70 psi (4.83 bar)
- Effective pH Range: 5 - 10



NANOCERAM[®] filter cartridges



NANOCERAM[®] filtration discs

Applications

Primary filtration in lieu of ultraporous and microporous membranes

Prefiltration/polishing for:

- ◆ Reverse Osmosis (R.O.)
- ◆ Ultrafiltration
- ◆ Microfiltration
- ◆ Ultraviolet (UV)
- ◆ Ozonation
- ◆ Chlorination

Food, Beverage & Bottled Water

Pharmaceutical & Biomedical

Cosmetics & Personal Care

Microelectronics

Power Generation

Machining (including EDM)

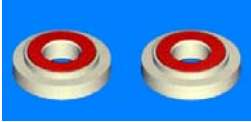
Potable:

- ◆ Municipal
- ◆ Point-of-Entry (POE)
- ◆ Point-of-Use (PVE)
- ◆ Personal

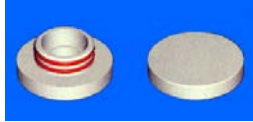
Each NANOCERAM[®] pleated filter cartridge is designed to satisfy the most difficult requirements in water treatment. By using the scientific principal of electropositive attraction/capture, NANOCERAM[®] technology leads to a rapid and highly efficient adsorption of virtually all particle sizes. NANOCERAM[®]'s media has a high capacity for particles as large as tens of microns or as small as a few nanometers. Each NANOCERAM[®] Filter Cartridge exhibits a rating of 0.2μ . . . a rating typically associated with ultraporous membranes. Yet NANOCERAM[®] flow rates are hundreds of times greater than such membranes.

END CAPS CONFIGURATIONS

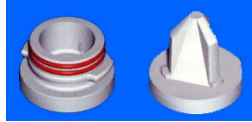
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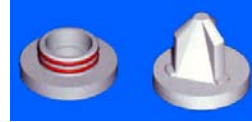
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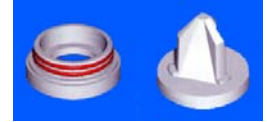
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NANOCERAM® P SERIES:

Part No.		P2.5-5 2.5" x 5"	P2.5-10 2.5" x 10"	P2.5-20 2.5" x 20"	P2.5-30 2.5" x 30"	P2.5-40 2.5" x 40"	P4.5-10 4.5" x 10"	P4.5-20 4.5" x 20"	P4.5-40 4.5" x 40"
Filter Surface Area	(cm ²) (m ²)	1.290 0,129	3.160 0,316	6.600 0,66	9,870 0.99	13,100 1.31	7,710 0, 771	15.800 1,58	32.500 3.25
Dirt Holding Capacity	(mg)	114400	280280	583440	875160	1161160	683540	1401400	2882880
Electroadsorptive (active) Surface Area	(cm ²) (m ²)	5,70 x 10 ⁷ 5.700	1,39 x 10 ⁸ 13.900	3.15 x 10 ⁸ 31,500	4,34 x 10 ⁸ 43.400	5.76 x 10 ⁸ 57.600	3.31 x 10 ⁸ 33,100	6,97 x 10 ⁸ 69,700	1.43 x 10 ⁸ 143,000
Diameter x Length	(mm)	70 x 122	70 x 248	70 x 508	70 x 762	70 x 1016	113 x 248	113 x 508	113 x 1016
Suggested Flow Rate	(LPM)	7,5	15	30	45	60	38	76	152
Peak Flow Rate*	(LPM)	19	38	76	114	151	95	189	380

* Peak Flow Rate based on initial flow using new filter cartridge and clean water during laboratory testing.

TURBIDITY REDUCTION & SILT DENSITY INDEX (SDI₃₀):

	Type	Flow Rate (GPM)	Type of water	Turbidity, NTU		SDI ₃₀ ^a
				In	out	
NanoCeram®	P2.5-10 2.5" x 10"	900	A2 dust ^b in RO water	252.00	< 0.01	0.2 ± 0.3 ^c
			Municipal tap water	0.87	<0.01	0.5 ± 0.1 ^d
"A"	1µ Absolute 2.5" x 10"	900	A2 dust ^b in RO water	239.00	60.00	ND ^e
			Municipal tap water	0.54	0.10	4.4 ± 0.2 ^f
	0.35µ Standard 2.5" x 10"	900	A2 dust ^b in RO water	239.00	55.00	N/D ^e
			Municipal tap water	0.57	0.14	4.6 ± 0.2 ^f
"B"	1µ Standard 2.5" x 20"	900	Municipal tap water	1.3 ± 0.1 ^g	0.4 ± 0.1 ^g	N/A
	1µ Absolute 2.5" x 10"	900	A2 dust ^b in RO water	243.00	23.00	ND ^e
			Municipal tap water	1.3 ± 0.3 ^g	< 0.01 ^h	5.5 ± 0.2 ^f
5µ Standard 2.5" x 20"	900	Municipal tap water	1.5 ± 0.7 ^g	1.1 ± 0.4 ^g	ND ^e	
"C" *	0.1µ Hollow Fiber Membrane 6.5" x 85" Module	5000	N/A	N/A	<0.08	< 2.0-3.0

* Manufacturer's published specifications.

Notes:

- Silt Density Index(SDI₃₀)
- ISO 121030-1, A2 Fine Test Dust;
- Average of six measurements;
- Average of four measurements;
- Not done since turbidity of filtered water is unacceptable high (expected to be less than 1 NTU);
- Average of three measurements;
- Average over 3 hrs test;
- During first 30 minutes of run;
- After 30 minutes of continuous water run.