

## NanoCeram® E-Series Filters

### Bacteria, Virus, and Cysts Removal

#### Key Features

- Reduces or Removes Bacteria, Virus, and Cysts
- NASA-derived technology
- Available with Powered Activated Carbon (PAC) and antimicrobial Agion
- Pleated construction yields high flow rates and low pressure drop.
- Fits existing bayonet-style permanent heads.
- Certified to meet NSF/ANSI 42/53 standards.
- Encapsulated cartridges provide for easy, no fuss replacement.



#### What is NanoCeram®

Argonide's NanoCeram® & PAC E-Series of Encapsulated Filter Cartridges act as a **Broad Spectrum Particle Magnet**. They feature a thermally bonded blend of microglass fibers & cellulose infused with Nanoalumina fibers in a non-woven matrix. By using the scientific principle of electropositive attraction / capture, NanoCeram® NASA-derived technology leads to a rapid and highly efficient adsorption of virtually all particle sizes. When assembled into a pleated cartridge, NanoCeram® offers a unique combination of efficiency, capacity, flow rate & low pressure drop at levels unmatched in today's filtration marketplace.

All NanoCeram® filter cartridges are assembled using only FDA-compliant materials.



#### Applications / Markets

- Potable Water
  - Residential Point of Use / Under Counter / Counter Top Water Filtration Systems
- Food & Beverage
- RO Prefiltration (SDI reduction)
- Process Water (turbidity, particulate, colloidal suspensions)
- Waste Water (biologicals, proteins, dyes)
- Iron Removal

#### Media Retention Characteristics

- Silt Density Index (SDI) 0.5-1.0
- >99.99% Efficiency at 0.2 microns (latex spheres)
- >3 LRV Cyst Retention
- >5 LRV Klebsiella terrigena Retention
- Dirt Holding Capacity: 82 g/ft<sup>2</sup>
  - Superior to microglass, meltblown, and membrane media.
- >99.95% Endotoxin Removal
- Effective at High / Low pH and in Presence of Salt Water



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## NanoCeram® E-Series Filters

### Virus Removal Comparison

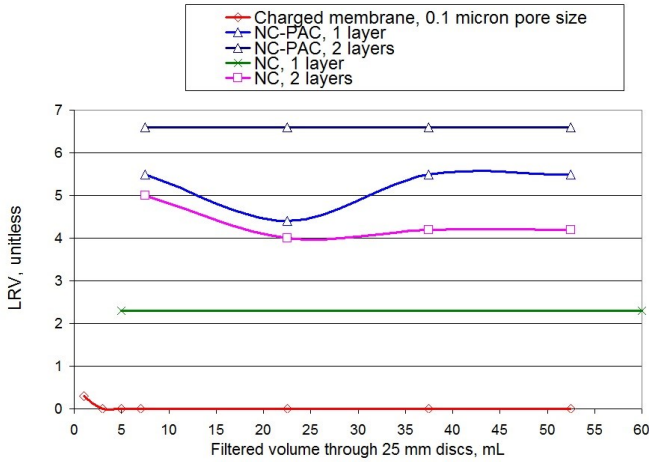
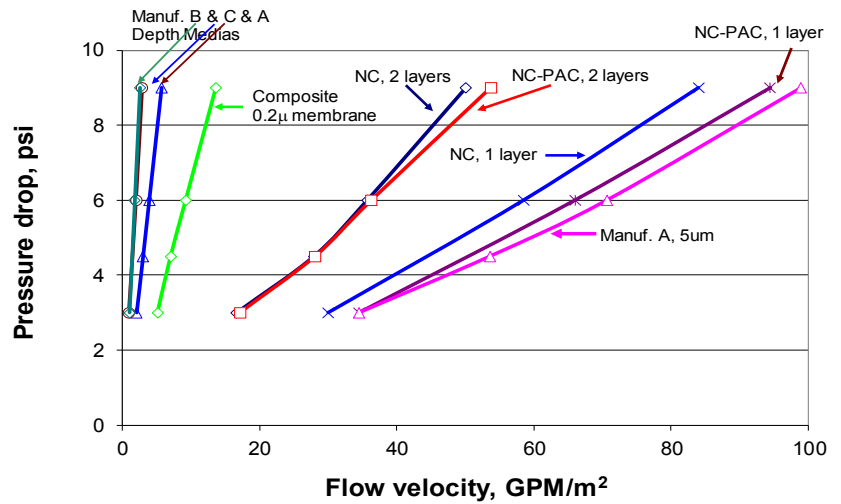


Figure – LRV values for MS2 removal by NC-PAC and 0.1 micron pore size charged membrane

### Flowrate Comparison



### SDI Comparison

Competitive Comparison - Turbidity and Silt Density Index (SD <sub>15</sub> ) - 10" cartridges (except where noted)						
Manufacturer	Type	Flow Rate (gpm)	Type of Water	Turbidity In	Turbidity Out	SDI <sub>15</sub> <sup>A</sup>
NanoCeram	P2.5-10	4	A2 dust <sup>B</sup> in RO water	252.00	<0.01	<b>0.2 ± 0.3<sup>C</sup></b>
			Municipal Tap Water	0.87	<0.01	<b>0.5 ± 0.1<sup>D</sup></b>
A	1µ absolute	4	A2 dust <sup>B</sup> in RO water	239.00	60.00	<b>Failed<sup>E</sup></b>
			Municipal Tap Water	0.54	0.10	4.4 ± 0.2 <sup>F</sup>
	0.35µ absolute	4	A2 dust <sup>B</sup> in RO water	239.00	55.00	<b>Failed<sup>E</sup></b>
			Municipal Tap Water	0.57	0.14	4.6 ± 0.2 <sup>F</sup>
B	1µ nominal (20")	4	Municipal Tap Water	1.3 ± 0.1 <sup>G</sup>	0.4 ± 0.1 <sup>H</sup>	<b>Failed<sup>E</sup></b>
	1µ absolute	4	A2 dust <sup>B</sup> in RO water	243.00	23.00	<b>Failed<sup>E</sup></b>
		4	Municipal Tap Water	1.3 ± 0.3 <sup>G</sup>	<0.01 <sup>H</sup>	5.5 ± 0.2 <sup>F</sup>
	5µ nominal (20")	4	Municipal Tap Water	1.5 ± 0.7 <sup>G</sup>	1.1 ± 0.4 <sup>G</sup>	<b>Failed<sup>E</sup></b>

Notes: A) Silt Density Index (SDI<sub>15</sub>); B) ISO121030-1 A2 Fine Test Dust; C) Average of 6 measurements; D) Average of 4 measurements; E) Failed -Turbidity of filtered water too high; F) Average of 3 measurements; G) Average over 3 hour test; H) During first 30 minutes of run.

#### Materials of Construction

**Media :** NanoCeram® Media  
**Support:** Polypropylene

#### Ordering Information

**Part No:** EP2.5-10  
EP2.5-10 AG  
EPAC2.5-10 AG

#### Operating Conditions

**Temperature:** 39-100°F (4-37°C)  
**pH Range:** 5 to 10  
**Terminal Pressure Drop:** 35psi (2.4 bar)  
**Maximum Salinity:** 200,000 ppm  
**Bodies tested to 125psi**

Flow Rate	Nominal	Maximum
2.5 - 10	4	10