ARGONIDE
ADVANCED FILTRATION SYSTEMS

NanoCeram® & NanoCeram® PAC Filters

Bacteria, Virus, and Cysts Removal

Key Media 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 standard residential and industrial housings
- Certified to meet NSF/ANSI 42/53 standards

What is NanoCeram®

Argonide's NanoCeram® & PAC Series of Pleated 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.

MADE IN THE U.S.A

Applications / Markets

- Potable Water
  - o Residential Point of Use / Under Counter / Counter Top Water Filtration Systems
  - o Point of Entry (POE)
- Food & Beverage
- RO Prefiltration (SDI reduction)
- Process Water (turbidity, particulate, colloidal suspensions)
- Waste Water (biologicals, proteins, dyes)
- Cooling Towers, Chill Water Loops (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
- <0.01 NTU until Terminal ΔP: 35 psid (2.4 bar)
- Dirt Holding Capacity: 82 g/ft²
  - Superior to microglass, meltblown, and membrane media.
- >99.95% Endotoxin Removal
- Effective at High / Low pH and in Presence of Salt Water

IAPMO R&T WATER QUALITY PLATINUM SEAL — IAPMO RESEARCH AND TESTING

This product has been tested and certified to meet NSF/ANSI 53 for Material Safety only.

Testing performed by IAPMO R & T has determined that this product reduces Cysts by at least 99.97%.

nqa ISO 9001:2015 Registered Quality Management — ANAB ACCREDITED ISO/IEC 17021-1 MANAGEMENT SYSTEMS CERTIFICATION BODY

Argonide Corporation
291 Power Court * Sanford, FL 32771 Tel: (407) 322-2500

T-822-05 REV: B 9.13.18

MEMBER Water Quality ASSOCIATION

ARGONIDE
ADVANCED FILTRATION SYSTEMS

NanoCeram® & NanoCeram® PAC Filters

Virus Removal Comparison

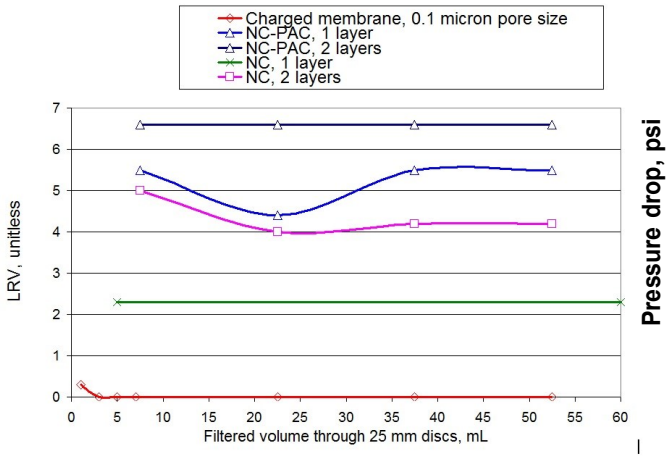
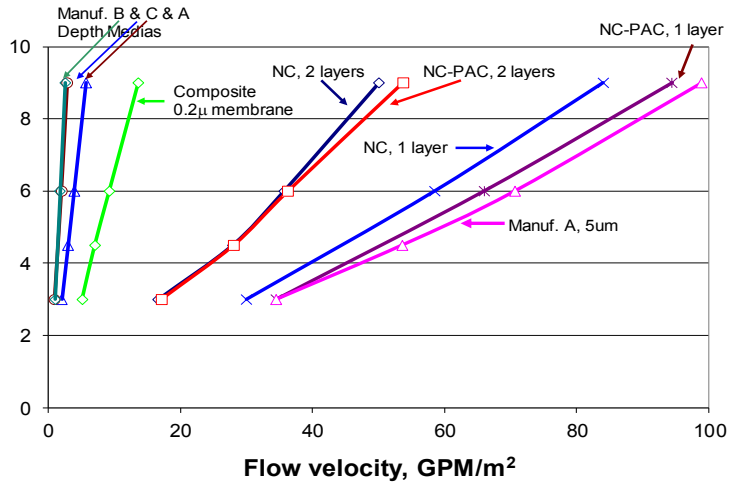


Figure – LRV values for MS2 removal by NC-PAC and 0.1 micron pore size charged membrane

Flowrate Comparison



SDI Comparison

Competitive Comparison - Turbidity and Silt Density Index (SD_{30}) - 10" cartridges (except where noted)

Manufacturer	Type	Flow Rate (gpm)	Type of Water	Turbidity In	Turbidity Out	SDI_{30} [A]
NanoCeram	P2.5-10	4	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	4	A2 dust[B] in RO water	239.00	60.00	**Failed[E]**
			Municipal Tap Water	0.54	0.10	4.4 ± 0.2[F]
	0.35µ absolute	4	A2 dust[B] in RO water	239.00	55.00	**Failed[E]**
			Municipal Tap Water	0.57	0.14	4.6 ± 0.2[F]
B	1µ nominal (20")	4	Municipal Tap Water	1.3 ± 0.1[G]	0.4 ± 0.1[H]	**Failed[E]**
	1µ absolute	4	A2 dust[B] in RO water	243.00	23.00	**Failed[E]**
		4	Municipal Tap Water	1.3 ± 0.3[G]	<0.01[H]	5.5 ± 0.2[F]
	5µ nominal (20")	4	Municipal Tap Water	1.5 ± 0.7[G]	1.1 ± 0.4[G]	**Failed[E]**

Notes: A) Silt Density Index (SDI_{30}); 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, Hot Melt

Flow Rate*	Nominal	Maximum
2.5 - 10	4	10
2.5 - 20	8	20
4.5 - 10	10	25
4.5 -20	20	50

* For maximum CTO efficiency flow rate for PAC unit is reduced.

Operating Conditions

Temperature: 39-140°F (4-60°C)

High Temp: 39-190°F (4-88°C)

pH Range: 5 to 10

Terminal Pressure Drop: 35psi (2.4 bar)

Maximum Salinity: 200,000 ppm

NanoCeram® cartridges also available with Power Activated Carbon (PAC) and Carbon Block Media.

Cartridges available in Single Open End, Double Open End and custom configurations.

IAPMO R&T WATER QUALITY PLATINUM SEAL

This product has been tested and certified to meet NSF/ANSI 53 for Material Safety only.

Testing performed by IAPMO R & T has determined that this product reduces Cysts by at least 99.97%.

Argonide Corporation
291 Power Court * Sanford, FL 32771 Tel: (407) 322-2500

T-822-05 REV: B 9.13.18