

DEAL® Series Formed Porous Block Filter Cartridges

Argonide's DEAL® porous blocks are formed from our patented electropositively-charged diatomaceous earth (DE) material, providing a unique combination of high efficiency and capacity for submicron particulate adsorption.

Argonide's proprietary process converts DE from an inherently electronegative material into a material that exhibits an extraordinarily strong electropositive charge . . . greater than +50mv.

While DE's electronegative charge virtually repels other particles, the new DEAL material acts like a broad-spectrum particle magnet. Not only attracting and capturing submicron particles, but retaining them with extreme efficiency.

DEAL cartridges are available as the final polishing filter in the CoolBlue Microbiological Water Purifier system as well as a stand-alone microbiological filter designed to fit into standard 2.5" x 10" filter housings.



Retention Characteristics

- >99.99% Efficiency at 0.2 microns (latex spheres)
- >4 LRV Cyst Retention
- >6 LRV Virus Retention
- >7.5 LRV E. coli Retention
- >99.95% Endotoxin Removal (235 to <0.12 EU/ml @ 10 mL/cm²/min)
- <0.01 NTU until Terminal ΔP (35 psid) using A2 Fine Test Dust

Markets

- Potable Water (POE, POU)
- Food, Beverage & Bottled Water
- Pharmaceutical
- Cosmetics & Personal Care
- Microelectronics
- Power Generation
- Inks, Paints & Coatings
- Municipal & Industrial Water

Features

- Effective at high pH and in the presence of salt
- Block construction provides depth filtration for high reliability and capacity
- Available in standard DOE configurations
- Provides optical clarification to fluids
- Manufactured with strict quality control
- All Components are manufactured with materials that meet FDA requirements 21CFR177.1520 for direct food contact applications.

Applications

- Make Up Water (particulate, microbial control)
- Polishing Filters (carbon fines, emulsified oil removal)
- RO Prefiltration (SDI reduction)
- Process Water (turbidity, particulate, colloidal suspensions)
- Waste Water (biologicals, proteins, dyes)
- Cooling Towers, Chill Water Loops (iron removal)
- Clarifying Filtration of Cell Cultures



DEAL₈₀ Porous Block Series

Specifications

Part No	ARG-A3-10
Physical Surface Area	0.53ft ²
Dimensions	2.78" x 9.75"
Suggested Flow Rate	1 gpm (3.78 lpm)
Maximum Flow Rate	2 gpm (7.57 lpm)

Materials of Construction

Media :

DEAL₈₀ Functionalized
Diatomaceous Earth Media

Support:

Polypropylene, Hot Melt

Gaskets:

EPDM

Operating Conditions

Temperature:

39-135°F (4-57°C)

pH Range:

4.0 to 9.5

Maximum Operating Pressure:

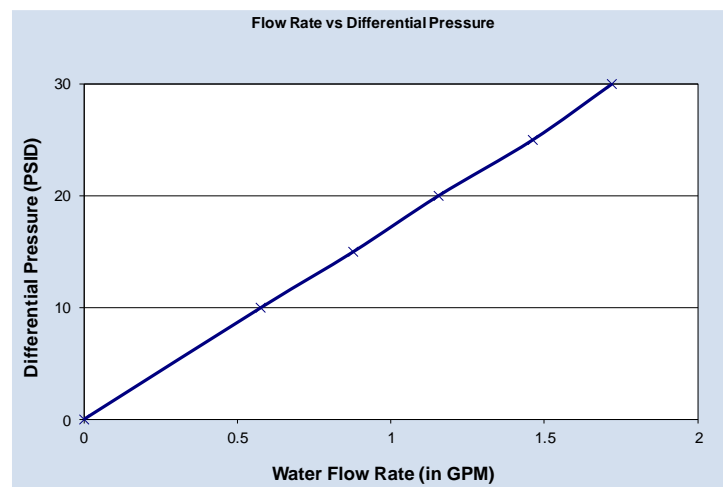
125 psid (8.6 bar)

Ordering Information

Part No:

ARG-A3 (2.5" x 10" DEAL₈₀ Block)

WATER FLOW RATE ARG-A3



Virus (MS2) and Bacterial (Raoutella terrigena) Retention Testing

Testing was conducted on the DEAL porous block filter for the purpose of the determining the retention of the MS2 Virus and Raoutella terrigena (RT) bacteria.

Twenty five liters of the MS2 or the RT suspension were passed through a cartridge at varying flow rates.

Differential Pressure (DP), psid	Flow Rate, GPM	MS2 removal efficiency, LRV	RT removal efficiency, LRV
16	1.0	>5.5	>8.0
25	1.5	>4.8	>6.0
35	2.0	5.4	>8.0