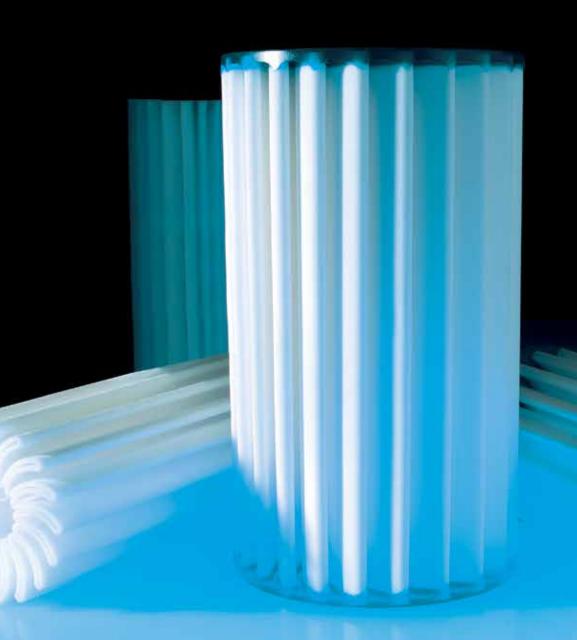


# LENNTECH POREX® Radial Cartridge Filter™



Porous Plastic

High Flow Capacity

Long Service Life

Surface Filtration

High Solids Loading

Cleanable

Backwashable



# LENNTECH

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# Why Choose POREX Radial Cartridge Filters?

- Rigid, lightweight POREX Radial Cartridge Filters install easily into existing filtration systems
- Porous PE cartridge
   is a one-piece, molded
   structure without
   seam or cage required for
   many applications
- Single-layer construction optimizes backwashable capability

- Molded high-density polyethylene cartridges have excellent chemical and physical resistance to withstand cleaning and reuse
- Uniform, Omni-directional pore structure ensures the right cartridge for your application
- Filtration material complies with the Code of Federal Regulations, Title 21, Section 177, 1520 Item 2.1, for food contact

## PERFORMANCE ATTRIBUTES

- · Porous Polyethylene (HDPE and UHMWPE)
- · Long Service Life
- Backwashable
- · Wide Range of Pore Sizes
- · High Surface Area Radial Geometry
- · High Flow Rates
- One Piece Molded Media Pack
- · Chemically Cleanable
- Multiple Diameters, Lengths and End Configurations
- Fits Standard Industrial and Commercial Filter Housings

### TYPICAL APPLICATIONS



Coatings: Paint, Inks, Resin

**Refineries:** Catalyst Recovery Clarification

Food & Beverage: DE or Ion Exchange Septum,

DE Trap, Prefiltration, Bulk Loading

Pulp & Paper: White Water, Resin, Wastewater

Water & Wastewater: RO prefilter, UF/NF Prefilter,

Cooling Towers, Scrubber Water

Hydraulic: Lube Filter

**Metal Finishing:** Cutting Fluids, Waste Reduction

Automotive: Paint and Machine Tools

Oil & Gas: Water Flood, Completion Fluid,

Amine, Glycol

**Bio-Diesel:** Point-Of-Use

Microelectronics: CMP, RO Prefilter, Photoresist, Stripper, PCB, PVA, CRT Coating

*In Development	
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Product Ordering Guide  Radial Cartridge Filter Part Number Matrix. Item must include a choice from each row of the center column. Example: CRE00502ANNN					
Туре	CR	Cartridge Radial Grid			
Polymer	E	Polyethylene			
Pore Size (microns)	005 010 020 050	5 10 20 50			
Length	0 1 2 3 4 6 7 8	4.875" 9.9" 19.9" 29.9" 40" 9.75" 19.5" 29.25" 39"			
Outside Diameter	2 4 6	2.65" (6.7 cm) 4.5" (11.4 cm) 6.1" (15.5 cm)			
End Cap	N S A B C D E	DOE/PU 3 4.5" & 6.1" SOE/PU OD Only DOE (Gasket/Gasket) SOE (Gasket/Flat) 222/Flat 222/Fin 226/Flat 226/Fin			
Cage	N Y	None Yes			
Seal	N E S V F B	None Ethylene Propylene Sil Vit FEP Buna			
Filler	N A	None Anti-Microbial*			

# Structural Filtration Media for Optimal Performance

Porex Radial Cartridge Filters are unique, patented, porous plastic cartridges designed to fit standard industrial and commercial cartridge filter housings. The polyethylene (HDPE and UHMWPE) cartridges are available in a wide range of pore sizes from 5 to 50 microns. The single-layer, one-piece molded structure is backwashable and cleanable.

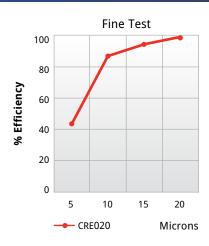
# **Chemical Resistance**

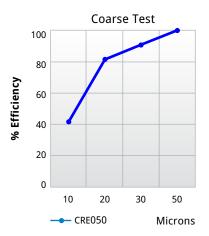
POREX Porous Plastics are made from thermoplastics that are resistant to a broad spectrum of corrosive chemicals and reagents.

# **Filtration Efficiency**

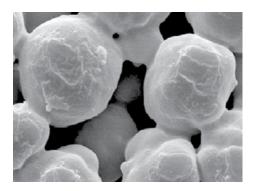
POREX Radial Cartridges are classification type filters that effectively remove particles at and above their respective ratings while allowing most smaller particles to pass through.

Porex Radial Cartridges maintain their high particle removal efficiency for consistent, reproducible results throughout the life of the filter. Filter performance is often expressed in terms of percent efficiency, defined as the ratio of upstream particle concentration compared to the downstream concentration that has passed through a filter body (multiplied by 100).





The Initial Retention Efficiency results per ASTM 795-88 are based on a single pass using a 2.65" diameter cartridge with 10" length at a flow rate of 3 gpm/ft $^2$  of water with ISO Fine or Coarse Test Dust.



# MATERIAL TECHNOLOGY

Throughout each POREX Radial Cartridge Filter runs an intricate network of open-celled, omni-directional pores which gives the media consistency throughout the cartridge for an innovative combination of filtering capability and structural strength.



Cutaway drawing of Radial Cartridge

# FLOW VS PRESSURE DROP\*

The specific pressure drop values (psi/gpm) per 10" cartridge are provided for each filter grade. POREX Radial Cartridges exhibit superior flow characteristics to other cartridges with comparable micron ratings. The benefits of lower pressure drop are longer cartridge life, higher throughput and lower overall cost.

\*Based on cumulative data supplied by an independent laboratory. Flow rates are based on the media and may be limited by the core of the cartridge or the cartridge housing.

POREX Radial Cartridge Filter Removal Ratings							
	Part No.	Filter Media	Micron Rating High Performance	GPM/ PSID	l/min/ kPa	PSID GPM/	kPa/l/ min
2.65 inch Diameter	CRE005 CRE010 CRE020 CRE050	UHMWPE UHMWPE UHMWPE HDPE	5 10 20 50	3.8 4.6 14.6 20.4	2.09 2.53 8.02 11.2	0.26 0.22 0.07 0.05	0.47 0.41 0.13 0.09
4.5 inch Diameter	CRE005 CRE010 CRE020 CRE050	UHMWPE UHMWPE UHMWPE HDPE	5 10 20 50	8.3 10.1 31.7 44.4	4.56 5.55 17.40 24.38	0.12 0.10 0.03 0.02	0.22 0.18 0.06 0.04
6.1 inch Diameter	CRE005 CRE010 CRE020 CRE050	UHMWPE UHMWPE UHMWPE HDPE	5 10 20 50	14.4 17.7 55.7 78.0	7.91 9.72 30.58 42.82	0.07 0.06 0.02 0.013	0.13 0.11 0.04 0.02

### **OPERATING PARAMETERS**

All POREX Radial Cartridge Filters are available in multiple end configurations to fit standard and commercial housings.

Parameter	Description
Media	HDPE (High-Density Polyethylene), UHMWPE (Ultra-High Molecular Weight Polyethylene)
Cage/Core	Polypropylene
Endcaps	Polyurethane or Polypropylene
Outside Diameter	2.65" (6.7 cm) 4.5" (11.4 cm) 6.1" (15.5 cm)
Inside Diameter	1.0" (2.5 cm) on 2.65" (6.7 cm) 1.0" (2.5 cm) on 4.5" (11.4 cm) 2.0" (5.1 cm) on 6.1" (15.5 cm)
Maximum Operating Temperature	80°C (176°F)
Pressure Rating	Forward 50 psid - 2.65" 35 psid - 4.5" and 6.1" in diameter
Effective Surface Area (10" Pleated Length)	1.7 ft² (.16 m²) per 2.65" (6.7 cm) 3.7 ft² (.35 m²) per 4.5" (11.4 cm) 6.5 ft² (.62 m²) per 6.1" (15.5 cm)



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## **Support Worldwide**

Porex corporation, as a global leader in porous polymer technology is committed to quality, innovation, and customer satisfaction. Porex owns and operates manufacturing facilities in Europe, Asia, and North America providing both standard and custom components to our customers through a global network of sales engineers, agents and distributors. Porex has attained ISO 9001 Certification at the USA, Germany and Malaysia operations. With an experienced engineering support staff and global distribution capabilities, Porex brings innovative solutions to the filtration marketplace.

#### **FDA and NSF Approved**

The majority of the raw materials used in the production of POREX Radial Cartridge Filters have been certified by their raw material suppliers as meeting FDA requirements in the Code of Federal Registration, 21 CFR 177.1520, for food contact, including cooking applications. Many components have been used in liquid filtration devices that carry NSF certification. In applications requiring NSF approval, Porex will work in conjunction with the NSF to help guide a product through the NSF application certification process.

### **Technology Leader**

Porex is all about innovation! For over 50 years
Porex has been a leader in the development
and manufacture of porous polymer technologies.
High-volume production and state-of-the art tooling
coupled with an advanced polymer laboratory and
extensive material science expertise ensure timely,
optimal solutions for a variety of applications
in the healthcare, consumer and industrial markets.
Continuous product innovation, vast technological
resources, commitment to quality and dedication
to customers are what distinguish Porex in the
marketplace.