#### 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)			

#### **Support Worldwide**

As a global leader in porous polymer technology, Porex 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. Our innovative manufacturing processes include highvolume production and state-of-the art tooling, coupled with an advanced polymer laboratory and extensive material science expertise. This ensures 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.



### AMERICAS

Porex Filtration 500 Bohannon Road Fairburn, GA 30213 USA T 770.515.7700 US Toll Free 866.515.7783 F 770.515.7799 info@porexfiltration.com

## EUROPE

Porex Technologies GmbH Sales & Marketing Europe Strangenhäuschen 30 52070 Aachen, Germany T +49 241 910525-0 F +49 241 910525-16 info.europe@porex.com

Porex Technologies Sdn Bhd Lot P.T. 74, Jalan Hulu Tinggi 26/6 Seksyen 26, Sektor A Hicom Industrial Park 40400 Shah Alam Selangor, Malaysia T +603 5191 3308 F +603 5192 3308 info.asia@porex.com

porexfiltration.com

#### CHINA

Porex Filtration Sales Office Room 1201E, Beijing Excel Center No. 6, Wudinghou Street Xicheng Disctrict, Beijing, 100033 China T +86 10 880037838 F +86 18611395838

**POREX® Radial Cartridge Filter™** Porous Plastic **High Flow Capacity** Long Service Life Surface Filtration High Solids Loading Cleanable Backwashable Filtration Group porexfiltration.com



# Why Choose Porex Radial Cartridge Filters?

**Product Ordering Guide** 

- 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

# **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).

#### **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.

Water & Wastewater: RO prefilter, UF/NF Prefilter, Cooling Towers, Scrubber Water

Hydraulic: Lube Filter

Automotive:

Metal Finishing: Cutting Fluids, Waste Reduction

Oil & Gas: Water Flood, Completion Fluid,

Amine, Glycol

Paint and Machine Tools

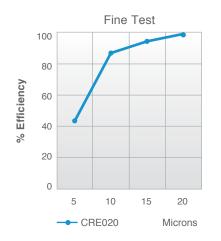
Bio-Diesel: Point-Of-Use

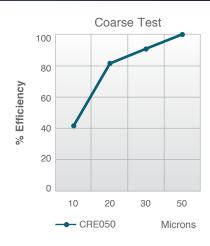
Microelectronics: CMP, RO Prefilter, Photoresist, Stripper, PCB, PVA, CRT Coating Radial Cartridge Filter Part Number Matrix. Item must include a choice from each row of the center column. Example: CRE00502ANNN Cartridge Radial Grid Type Polymer Polyethylene 005 Pore Size 010 10 (microns) 020 20 050 50 4.875" 9 9" 19.9" 29.9" Length 40" 9.75" 19.5" 29.25" 2.65" (6.7 cm) Outside Diameter 4.5" (11.4 cm) 6.1" (15.5 cm) DOE/PU } 4.5" & 6.1" SOE/PU } OD Only DOE (Gasket/Gasket) SOE (Gasket/Flat) End Cap С 222/Flat 222/Fin 226/Flat 226/Fin None Cage Yes None Ethylene Propylene Seal Vit FEP Buna

Anti-Microbial\*

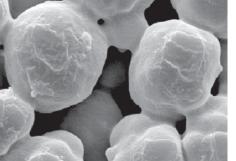


Filler





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<sup>2</sup> 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