

Ecopure PRB Series

Phenolic Resin Bonded Filter Cartridges

PRB Series phenolic resin filter cartridges excel in filtration efficiency due to a unique manufacturing process, establishing a rigid structure with graded porosity. This design captures coarser particles near the surface and finer particles toward the core. The graded porosity structure reduces bypass and eliminates the unloading characteristics seen in soft and easily deformable competitive melt-blown and string-wound filter cartridges.



Ecopure PRB series cartridges, constructed with polyester fibers and phenolic resin, excels in durability and resilience, withstanding extremes without compression. The grooved surface structure extends the overall filter life while increasing dirt holding capacity. These filters deliver a unique, durable, and high-performance solution for demanding applications, ensuring exceptional chemical and heat resistivity. This makes the PRB series ideal for a range of challenging conditions, including high-temperature, high-viscosity, and high-pressure applications like paints and coatings.

Feature and Benefit



•Broad chemical compatibility

Rigid construction makes it ideal for high viscosity chemical liquid filtration and chemically aggressive applications, offering solvent resistance, corrosion resistance, and broad chemical compatibility.

•Ideal for high flow and high temperature applications

No deformation in high-flow, high-temperature conditions, excelling with solvent-based liquids and high-viscosity fluids, regardless of temperature, pressure, or viscosity levels.

•Graded porosity structure

Ensuring consistent filtration performance, these filters offer low pressure drop, long life, higher contaminant-holding capacity, excellent particle removal efficiency, and high dirt-holding capacity.

•Rigid resin bonding structure

The rigid resin bonding structure is designed to prevent the unloading of materials in situations with high pressure, ensuring stability even when there are notable pressure fluctuations.

•Broad filtration range

Available in a wide range of removal efficiencies from 1 to 150 microns for diverse applications.



•Grooved surface structure

The grooved surface structure in resin-bonded cartridges increases filtration area, enhancing dirt loading capacity and prolonging on-stream life.

Applications

• Paints and Coatings •

Varnishes, Shellacs, Lacquers, Automotive Paints, Paints & Related Products, Industrial Coatings.

• Inks •

Printing Ink, UV Curing Ink, Conductive Ink, Color Paste, Liquid Dye, Can Coating, Printing & Coatings, UV Curing Ink, Can Coating, etc.

• Emulsions •

Various Emulsions.

• Resins •

Epoxies.

• Organic Solvents •

Adhesives, Sealants, Plasticizers, etc.

•Lubrication & Coolants•

Hydraulic Fluids, Lubricating Oils, Greases, Machine Coolants, Antifreeze, Coolants, Silicones, etc.

• Various Chemicals •

Strong Oxidizing Acids (Industrial), Amine & Glycol (Oil & Gas Processing), Pesticides, Fertilizers.

• Process Water •

Desalination (Industrial), Process Cooling Water (Industrial), etc.

General Manufacture • Processes •

Pre-filtration and Polishing, Mechanical Wastewater Treatment, Plating, Completion Fluids, Hydrocarbon Streams, Refineries, Fuel Oils, Crude Oils, Animal Oils, etc.

*The PRB series cartridges are not suitable for use in food, beverage, or pharmaceutical applications.

Operating Parameters

Maximum operating temperature	145°
Maximum pressure difference	4.5 bar
Recommended to change the pressure difference	2.5 bar

Dimensions

Nominal lengths	9 3/4" to 40" (248 - 1016 mm)
Inside diameter	28mm
Outside diameter	65mm

Materials of Construction

Phenolic resin, polyester fiber.

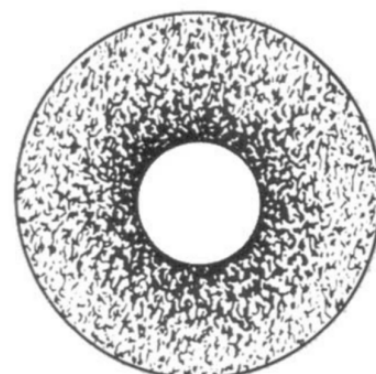
Cartridge Configurations

The standard PRB series filter cartridges come in various lengths, catering to a wide range of cartridge housings from major manufacturers (refer to the ordering guide for details).

Filter Performance

The PRB series products integrate surface and depth filtration principles within a single cartridge, delivering extended filter service life, increased particle removal efficiency, and optimal flow characteristics.

* Cross-Section of PRB Series Cartridge Demonstrating Authentic Graded Porosity Design



Ecopure PRB Series Cartridges – Ordering Guide

Range	Surface type	Cartridge length	Rating
EP=ECOPURE	G=GOOVED	1=9.75" (24.77cm)	A=1µm
		2=10" (25.40cm)	B=5µm
		3=19.5" (49.53cm)	C=10µm
		4=20" (50.80cm)	D=25µm
		5=29.25" (74.26cm)	E=50µm
		6=30" (76.20cm)	F=75µm
		7=39" (99.06cm)	G=100µm
		8=40" (101.60cm)	H=125µm
	W=WRAPPED*		I=150µm
			G=200µm
			K=400µm



*This document is a description of the grooved type GRB filter cartridges.

We provide spirally wrapped type WRB filter cartridges. Please consult our sales team for more information.

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