

# PolyKey™

## Polypropylene Cartridge Filters



A range of high-quality nominally-rated pleated polypropylene cartridge filters, suitable for challenging filtration environments, including chemical processing, process water and food and beverage.

PolyKey™ filter cartridges are manufactured from melt-blown and spun-bonded pleated polypropylene media, ensuring a highly efficient media with excellent particulate removal as well as low pressure drops.

### Typical Applications

- Food and beverage
- Reverse osmosis pre-filtration
- Potable and de-ionised water
- Process water
- Chemical processing
- Coatings
- Oils

### Ordering Information

Product Code: 1 2 3 4 5 6					
1: Nominal		2: Pore Rating		3: Version	
PK	PolyKey™	P1	0.1µm	S	Standard Hard Cage
		P2	0.2µm	N	Netted
		P45	0.45µm		
		01	1µm		
		03	3µm		
		05	5µm		
		10	10µm		
		30	30µm		
4: Length (Nominal)		5: End Fitting		6: Seals	
1	10" (254mm)	A	Code 3	A	Ethylene Propylene
2	20" (508mm)	B	Code 7	B	Silicone
3	30" (762mm)	C	Code 8	C	Viton®
4	40" (1016mm)	D*	Plastisol / PVC (double open end)	D	Nitrile
5	5" (127mm)	K	Code 2	J	DOE PTFE
		M	DOE		

\* When an item has End Fitting option D it does not require a Seal.

## Standard Range

### Features and Benefits

- Excellent chemical compatibility
- Variety of end caps
- High-efficiency design
- Outer guard in a single module
- Wide range of options

### Specifications

#### Materials of Manufacture

Filter media:	Polypropylene
Membrane support:	Polypropylene
End caps:	Polypropylene (thermal bonded)

#### Operating Characteristics

Maximum  $\Delta P$ : 60psid (4.1bar) @ 140°F (60°C)  
 Changeout recommended at 30psid (2.1bar)

#### Cartridge Dimensions (Nominal)

Effective Filtration Area:

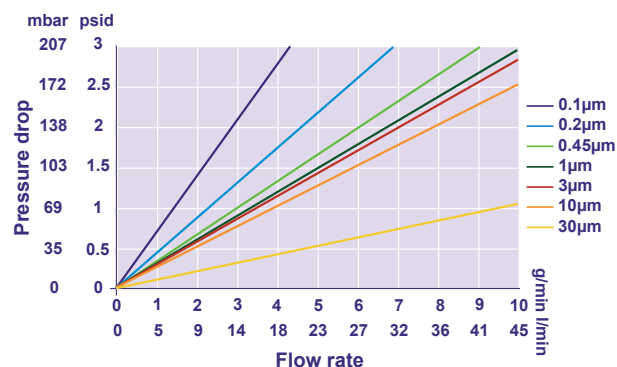
4.5ft<sup>2</sup> (0.4m<sup>2</sup>) per 10" length

Diameter: OD 2.75" (70mm)  
 2.5" (64mm)  
 ID 1" (25mm)

Length: 5" (127mm)  
 10" (254mm)  
 20" (508mm)  
 30" (762mm)  
 40" (1,016mm)

Other lengths available on request.

#### Flow / Pressure Drop



Flow rates shown are for a nominal 10" (254mm) long cartridge. For fluids other than water, multiply the pressure drop by the fluid viscosity in centipoise.

#### Filter Retention Specifications\*

Nominal micron rating	Liquid Service			
	Particulate removal efficiency (Beta ratio)			
	90% (10)	99% (100)	99.9% (1,000)	99.99% (10,000)
0.1	0.1	0.45	0.8	1
0.2	0.2	0.6	1	2
0.45	0.45	1	2	3
1	1	3	7	10
3	3	7	10	15
10	7	10	15	25
30	30	40	50	60

\* Data acquired by multi-pass testing. Ratings are based on laboratory tests using ISO ultra-fine test dust for 0.2, 0.45 and 1μ and ISO fine test dust for 5μ. Flow rate 1 gpm/sq.ft. at room temperature. Field results will be influenced by the type of fluid and contaminant as well as the flow rate and temperature.