



## MICROGARD™ UPE AND UPX CARTRIDGE FILTERS

*Hydrophobic UPE filters with superior cleanliness for high-purity chemical and photochemical filtration*

### Overview

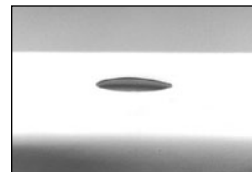
Microgard™ UPE/UPX filters use a patented ultra-high molecular weight polyethylene (UPE) membrane, which has the highest retention efficiency of any membrane: > 99.999% of the stated retention rating. This revolutionary membrane has excellent retention capabilities to meet the increasing demands of today's leading edge technology. Microgard UPE/UPX filters offer low surfactant binding, excellent wettability and superior downstream cleanliness.

#### Low Cost of Ownership

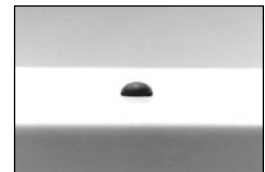
Microgard UPE/UPX filters do not require prewetting with solvent-based photochemicals. The result is lower operational costs and a more consistent, reliable process.

#### Superior Downstream Cleanliness

The filter's all-polyethylene construction lowers metallic/ionic contamination that can leach from filters that are manufactured with materials such as polypropylene and nylon.



*UPE membrane: Photoresist wets within 10 seconds.*



*PTFE membrane: Resists instantaneous wetting.*

Features	Benefits
Hydrophilic, patented UPE membrane	Eliminates prewetting and flushing; does not dewet in outgassing fluids. Saves time, increased equipment uptime, provides better, more consistent filtration.
Low surfactant binding	Reduces striations, reduces chemical usage as fewer predisposes are required to condition the filter.
High retention rating: >99.999% at stated retention rating	Low particle counts in chemical delivery systems and bulk chemical production.
Superior wettability	Eliminates prewetting, reducing chemical usage while reducing system downtime during filter changeouts.
All-polyethylene construction	Reduces particle contamination with superior downstream cleanliness. The all-polyethylene construction lowers metallic/ionic contamination that can leach from filters that are manufactured with materials such as polypropylene and nylon.

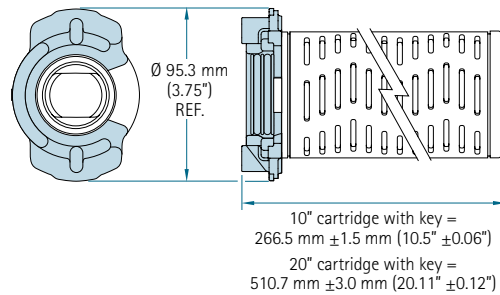
# Microgard UPE Cartridge Filters

## Specifications

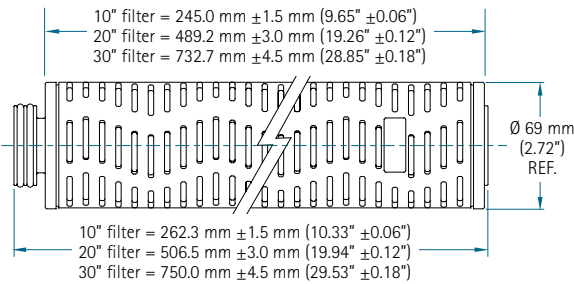
Materials:	Membrane	Patented hydrophobic ultra-high molecular weight polyethylene (UPE)
	Supports, core, sleeve	High-density polyethylene (HDPE)
	O-rings	Teflon® fluoropolymer encapsulated Viton® fluoroelastomer (TEV), EPDM
Filtration area:	10"	8,500 cm <sup>2</sup> (9.1 ft <sup>2</sup> )
	20"	17,000 cm <sup>2</sup> (18.3 ft <sup>2</sup> )
	30"	25,500 cm <sup>2</sup> (27.4 ft <sup>2</sup> )
Operating conditions:	Maximum forward/reverse differential pressure	0.35 MPa (3.5 bar, 50 PSID) @ 25°C (77°F)
	Maximum reverse differential pressure	0.27 MPa (2.7 bar, 40 PSID) @ 20°C (68°F)
	Maximum temperature	60°C (140°F)
Retention efficiency:	0.05 µm	>99.999% retention of 0.055 µm PSL beads
	0.1 µm	>99.999% retention of 0.100 µm PSL beads)
	0.2 µm	>99.999% retention of 0.198 µm PSL beads

## Dimensions

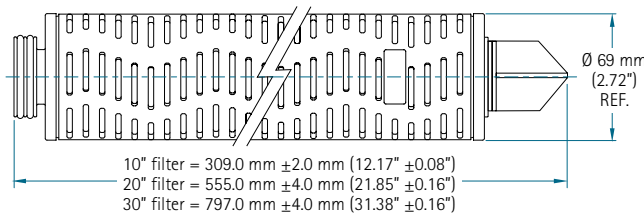
### End View Chemlock® Key on Cartridge



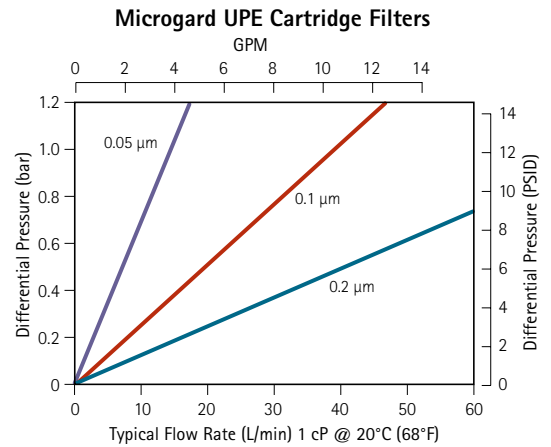
### Code 0



### Code 5



## Performance Data



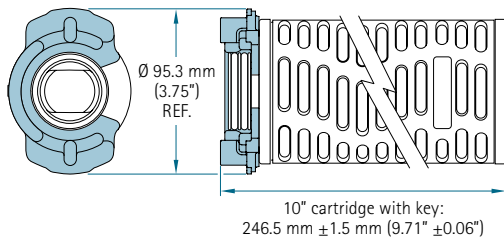
# Microgard UPX Cartridge Filters

## Specifications

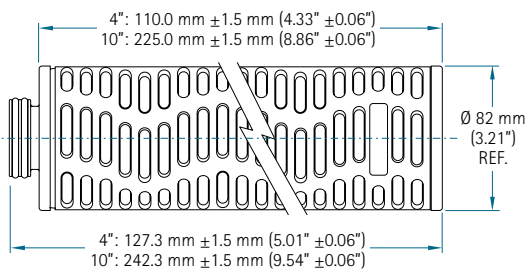
Materials:	Membrane	Patented hydrophobic ultra-high molecular weight polyethylene (UPE)
	Supports, core, sleeve	High-density polyethylene (HDPE)
	O-rings	Teflon fluoropolymer encapsulated Viton fluoroelastomer (TEV) or Kalrez® perfluoroelastomer
Filtration area:	4"	5,000 cm <sup>2</sup> (5.4 ft <sup>2</sup> )
	10"	11,000 cm <sup>2</sup> (11.8 ft <sup>2</sup> )
Operating conditions:	Maximum forward/reverse differential pressure	0.35 MPa (3.5 bar, 50 PSID) @ 25°C (77°F)
	Maximum reverse differential pressure	0.27 MPa (2.7 bar, 40 PSID) @ 20°C (68°F)
	Maximum temperature	60°C (140°F)

## Dimensions

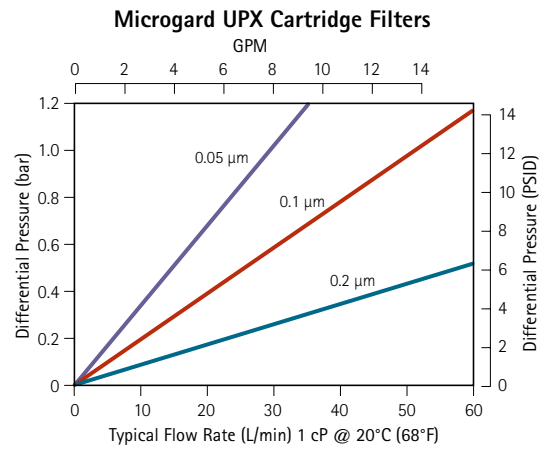
### End View Chemlock Key on Cartridge



### Code 0



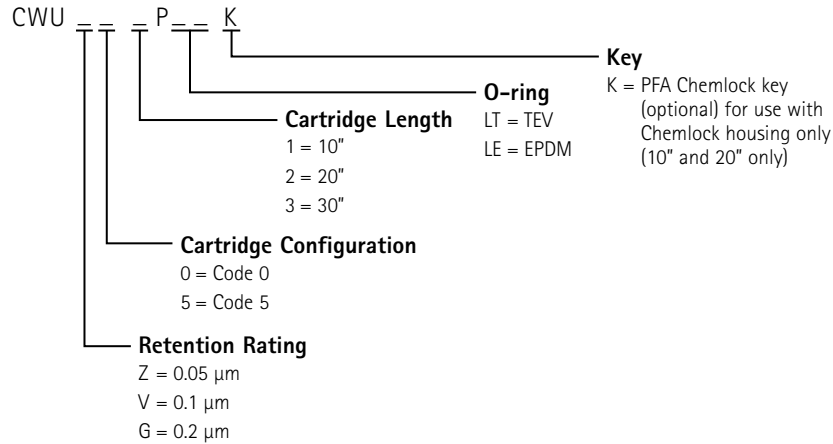
## Performance Data



# Ordering Information

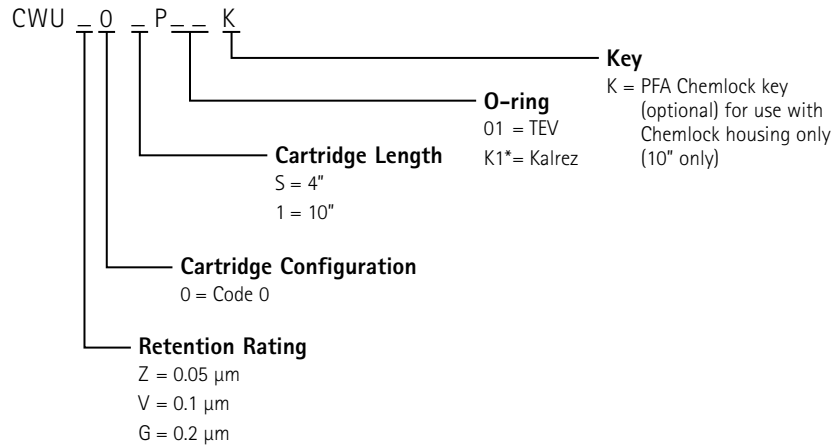
## Microgard UPE Cartridge Filters

### Part Number



## Microgard UPX Cartridge Filters

### Part Number



\*Kalrez o-ring available in 10" configurations only

## For More Information

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