porvair filtration group

LiquiPro™ MX

UPE 10nm-1nm Cartridge Filters

LiquiPro™ MX series of UPE liquid filters deliver superior cleanliness and high retention capabilities for photochemical manufacturing and for chemical systems. Photoresist and photochemical solvents would spontaneously wet LiquiPro™ MX UPE membrane filter and provide high flow, excellent particle removal and low extractables chemical filiration applications.

Features and Benefits

- For advanced photo chemical and ultra-high-purity chemicals, LiquiPro™ MX is an effective and economical filtration solution for bulk photochemical, solvent, or aqueous chemical applications. UPE membrane's uniform pore structure is effective for soft gel and hard particle removals, and it offers better particle retention performance compared to PTFE membrane. The high purity treatment ensures low metallic contaminants. A high purity performance and reliable filtration is assured.
- Eliminates microbubble generation.
  LiquiPro™ MX series has a critical surface energy similar to many photo-chemicals. When used with photoresists, common photochemical solvent is conveniently used without prewetting to maximise process up-time, it reduces the potential for microbubble generation to prevent particle formation and other related defect.
- All UPE/PE construction provides lower metallic and ionic contamination compared to those that can be leached from PP and PFA materials. Pre-cleaned with photo-chemicals such as PGME, PGMEA. LiquiPro MX < 2.0 ng/L (PPT), competitor A < 5.0, competitor B <10.0.
- Ultra-high-purity processing to produce typical values of ICP-MS for 31 elements after the filter is soaked for 72 hours at 30°C, with 1.5 liters of PGMEA.
- Excellent particle retention. Benchmarking test with gold nano particles yielded excellent and comparable particle retetion performance vs industry leading competitors.

Typical Applications

- Advanced photochemical filtration.
- Photochemical solvent filtration, e.g. OK73, IPA, MeOH, PGMEA etc.
- Formulated cleaner or post CMP clean solution with DIW and polymer.
- Dilute acid and base filtration (without H202 or ozone)at or below 40°C (104°F)

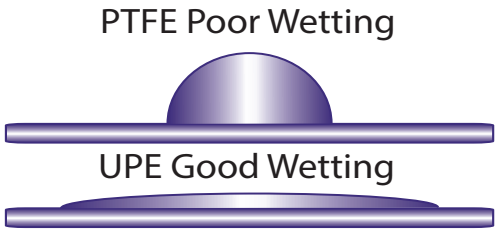
Performance Specifications

Materials of construction

Filter media: UPE membrane
End caps, core, cage, support: HDPE
Gaskets/O-rings: EPDM, FKM , E-FKM.

External Certification

Non-dewet when used with dilute and week acids and bases filtration. Customer must follow an IPA-prewet procedure. In the near future, prewet packaged LiquiPro™ MX will be offered to provide customer quick start-up without the need to carry out on-site IPA wetting procedure.



Certificate of quality enclosed with each lot of products for quality assurance that ensures filter-to filter, lot-to-lot and performance.

Fast rinse up as filters have been pre-flushed with Ultrapore DI water.

Specifications

Materials of Construction:
All HDPE support structure

Membrane:
Hydrophcbic UPE

High flow hydrophobic UPE on 1nm only

Surface Area:
15,500 cm^2 (16.1ft^2)

Pore size rating:
1,2,3,5,10 nanometer (nm)

Maximum differential pressure:
3.4 bard (3.4kg/cm2d, 50 psid) @25^{0}C (77^{0}F)
1.7 bard (1.7kg/cm2d, 24 psid) @60^{0}C (176^{0}F)

Operating Temperature:
Recommended at 40^{0}C (104^{0}F), maximum 60^{0}C

Compatibility and purity:
Filters do not use any binders, surfactants, or adhesives for broad usage compatabilities.

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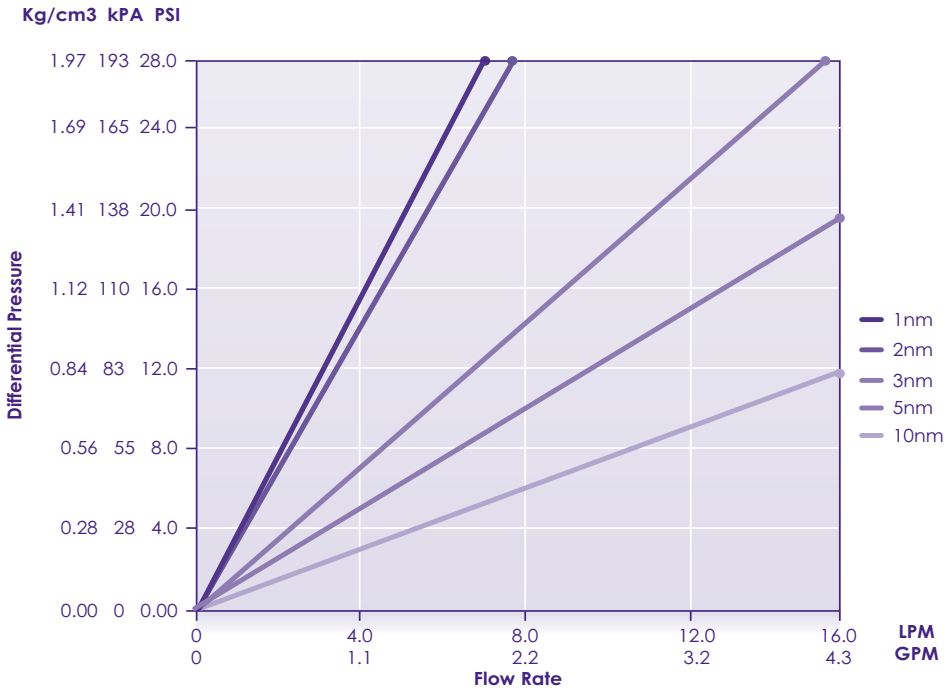

** Flow rate is for a 25°C and a 25.4cm (10 in) cartridge. For liquids other than water, multiply differential pressure by fluid viscosity (cP).*

Ordering Information

Product Name	Micro Rating	Adaptor Code	Seals	Cleanliness	Length	Key Option	Packaging Option
Example: MX	**10**	**A**	**T**	**U**	**10**	**K**	**W**
MX: Liquipro MX UPE	01 = 1nm	A = 2-222/Flat	T = E-FKM	U = UHP Grade	10 = 10inch	Blank = No EZ Key	Blank = Dry
	02 = 2nm		E = EPDM		20 = 20inch	K = EZ Key	W = IPWET Prewet-Autoclave (NSR)
	03 = 3nm						
	04 = 4nm						
	05 = 5nm						
	10 = 10nm						