

LiquiPro™ MX

UPE 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 filtration 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 defects.
- 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).

- Ultra-high purity processing ensures no detectable contamination, as confirmed via ICP-MS analysis of 31 elements, after filter soaked in 1.5 litres of PGMEA for 72 hours at 30°C.
- Excellent particle retention. Benchmarking test with gold nano particles yielded excellent and comparable particle retention 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 H₂O₂ or ozone) at or below 40°C (104°F)

External Certification

Non-dewet when used with dilute and weak 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.

PTFE Poor Wetting



Specifications

Materials of construction:

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

Membrane:

Hydrophobic UPE

High flow hydrophobic UPE on 1nm only

Surface Area:

15,500 cm² (16.1ft²)

Pore size rating:

1,2,3,5,10 nanometer (nm)

Maximum differential pressure:

3.4 bard (3.4kg/cm2d, 50 psid) @25°C (77°F)

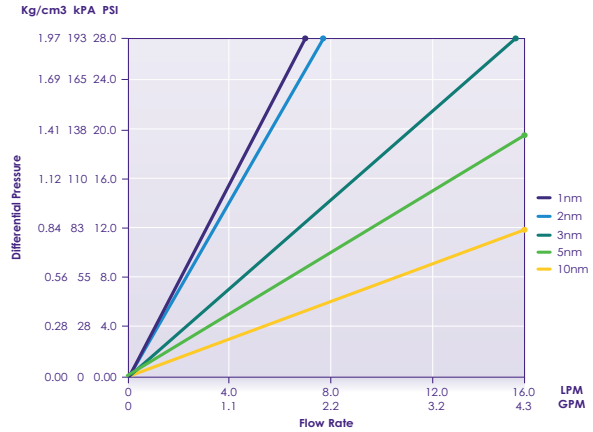
1.7 bard (1.7kg/cm2d, 24 psid) @60°C (176°F)

Operating Temperature:

Recommended at 40°C (104°F), maximum 60°C

Compatibility and purity:

Filters do not use any binders, surfactants, or adhesives for broad usage compatibilities.



* 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

To form a part number, please choose one option from each column below.

Product Code: **1** **2** **3** **4** **5** **6** **7** **MX01AAU10**

Product Name	Micron Rating	Adaptor code	Seals	Cleanliness	Length	Packaging Option
MX LiquiPro MX UPE	01 1nm	A 222 / flat	A EPDM	U Ultra High Purity (< 40ppb)	10 10"	- Dry
	02 2nm		T E-FKM		20 20"	W IPWET Prewet Autoclave (NSR)
	03 3nm					
	05 5nm					
	10 10nm					