

# LiquiPro™ MI

Disposable Capsule Filters



LiquiPro™ MI are high purity disposable filters offered with 3 different types of high-performance membranes: hydrophobic PTFE membrane; Nylon membrane and PES membrane with UHP virgin grade PP support materials for critical high purity photochemical point-of-use filtration applications.

#### **Features and Benefits**

- Ultra-clean filter design. Filter design, materials selection and UHP decontamination procedure are optimised to eliminate shedding and extractables to ensure reliable downstream cleanliness.
- LiquiPro<sup>TM</sup> MI provide excellent chemical compatibility to make these filters ideal for pointof-use photochemical filtration applications, including a broad range of photoresists and solvent.
- Designed for the removal of micro gel, soft gel and particles present in most advanced photoresist systems. Eliminates pre-wetting and reduces downtime.
- Advanced photoresist system consists of typically of solvent, photo acid generator (PAG), acid quenchers, additives and surfactants. Prewetting is not required.
- LiquiPro™ MI D PN series helps to eliminate microbridging defects in photoresist and cone defects in the anti-reflective coatings.
- This disposable series uses the highest quality PES membrane which is hydrophilic to positive developers such as TMAH and DI to eliminate the formation of bubbles and micro-bubbles during the spin rinse process.



## **Typical Applications**

- Ultra-high-purity version for advanced EUV, 157nm; and 18.2MΩ DIW pre-flushed version for DUV-ArF-193nm and DUV-KrF-248nm photoresist filtration
- Class 10000 clean room version for general photochemical and solvent filtration.
- Point-of-use solvent, IPA, acetone and others.
- Point-of-use Developer and DI water.

## **Performance Specifications**

#### Pore size rating

0.05, 0.1, 0.2, 0.5, 1.0, 5.0, 10.0 µm

#### Maximum operating pressure:

6.0 bard (87 psid) @ 25°C (77°F)

#### Membrane area:

Short Series: PTFE/Nylon:1000-1150 cm² (155-178 in²) Long Series: PTFE/Nylon: 2000-2300 cm² (310-356 in²)

## Maximum operating temperature

60°C (140°F)

# **Ordering Information**

Variant	Length	Pore Rating	Connections	Cleanliness
MIDF: LiquiPro™ MI Disposable Capsule/PTFE w PP Support	<b>\$</b> : Short (114-132 mm)	<b>005</b> : 0.05 μm	<b>\$2</b> : 1/2" Compression I/O 1/4" Compression V/D	<b>U</b> : Ultra High Purity
<b>MIDH</b> : LiquiPro™ MI Disposable Capsule/Nylon w PP Support	<b>L</b> : Long (173-209 mm)	<b>010</b> : 0.1 μm	<b>\$4</b> : 1/4" Compression I/O 1/4" Compression V/D	P: UPW Pre-Flushed TOC
MIDB: LiquiPro™ MI Disposable Capsule/PES w PP Support		<b>020</b> : 0.2 μm	<b>N2</b> : 1/2" NPT Male I/O 1/8" NPT Male V/D	
	Other pore ratings available upon request.		N4: 1/4" NPT Male I/O 1/8" NPT Male V/D	
			<b>P2</b> : 1/2" Super Pillar I/O 1/4" Super Pillar V/D	
			<b>P4</b> : 1/4" Super Pillar I/O 1/8" Super Pillar V/D	
			<b>P8</b> : 3/8" Super Pillar I/O 1/4" Super Pillar V/D	
			<b>M6</b> : 6mm Super Pillar I/O 4mm Super Pillar V/D	
			<b>M8</b> : 8mm Super Pillar I/O 4mm Super Pillar V/D	
			F6: 3/8" Flaretek I/O 1/4" Flaretek V/D	

# **Capsule Dimensions**

Length Code	Fitting	Dia (Shell) mm/inch +/- 1mm	Dia (Max) mm/inch +/- 1mm	Length mm/inch +/-1mm
Short	\$44	67.5 / 2.66	71.0 / 2,79	114.0 / 4,49
Short	N42	67.5 / 2.66	71.0 / 2,79	116.0 / 4,57
Short	N62	67.5 / 2.66	71.0 / 2,79	124.0 / 4.88
Short	N84	67.5 / 2.66	71.0 / 2,79	127.0 / 5.00
Short	P44	67.5 / 2.66	71.0 / 2,79	121.7 / 4.79
Short	PM64	67.5 / 2.66	71.0 / 2,79	121.7 / 4.79
Long	\$84	67.5 / 2.66	71.0 / 2,79	179.0 / 7.05
Long	P64	67.5 / 2.66	71.0 / 2,79	193.2 / 7.61
Long	P84	67.5 / 2.66	71.0 / 2,79	193.2 / 7.61
Long	PM84	67.5 / 2.66	71.0 / 2,79	193.2 / 7.61
Long	F64	67.5 / 2.66	71.0 / 2,79	209.8 / 8.26
Long	N82	67.5 / 2.66	71.0 / 2,79	186.0 / 7.32

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