



AZ[®] nLOF[™] 5000 Photoresist

Product Description

AZ[®] nLOF[™] 5000 Series I-line photoresists are uniquely formulated to simplify the historically complex lift-off lithography process. You can now run a standard lithography process to get the desired lift-off profiles. The fast nLOF resists work well in both surfactant and surfactant-free TMAH developers using standard conditions.

nLOF 5000 Series resists can be used for sub 0.5µm lift-off processing.

Features

- High Throughput
- Streamlined Lift-Off Process
- Process Compatibility
- Process Extendability

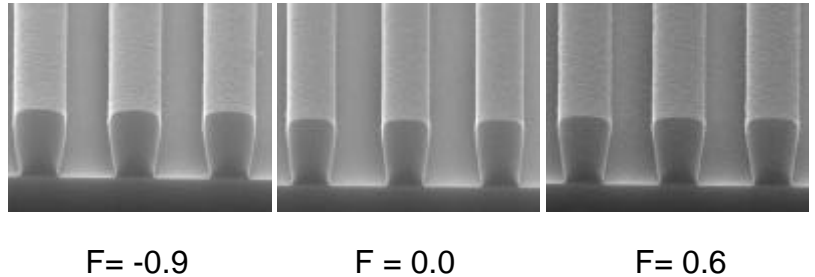
Benefits

- i-line DTP ~ 100mJ/cm²
- Standard single-layer lithography process to achieve lift-off profiles.
- No extra steps required!!
- Easy integration with an existing process with standard process conditions!
- Achieve Lift-off profiles well beyond 0.5µm with no process enhancements!

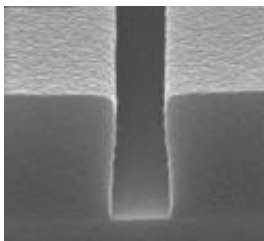
Standard Process Conditions

Coat: 1.0 µm resist thickness
 Softbake: 90°C for 60 sec
 Exposure: Nikon Stepper @ NA=0.54
 DTP = 144 mJ/cm²
 PEB: 110°C for 60sec
 Develop: AZ[®] 300MIF Developer for 60 sec single puddle @ 23°C

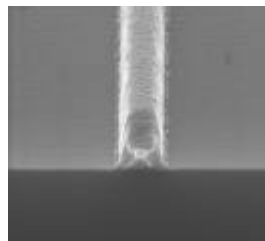
Depth of Focus @ 0.7 µm Dense Lines



Metal Lift-off Process Results
 Resist Trench Metal Isolated Line

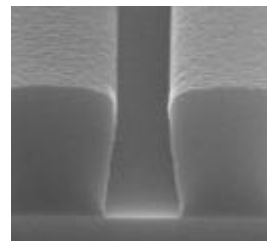


0.40 µm

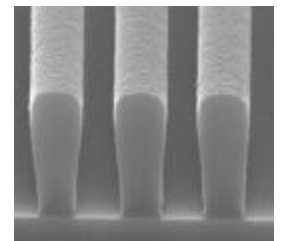


0.40 µm

Resolution Capabilities
 Isolated Trench Dense Lines



0.38 µm



0.38 µm



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Storage

Keep in sealed original containers away from oxidants, sparks, and open flame. Protect from light and heat. Keep refrigerated. Recommended storage temperature of 45°F. Empty container may contain harmful residue and/or vapors. Dispose of appropriately.

Equipment Compatibility

AZ nLOF 5000 Series resists are compatible with all commercially available wafer and photomask processing equipment. Recommended materials of construction include stainless steel, glass, ceramic, PTFE, polypropylene, and HDPE.

Solvent Safety

AZ nLOF 5000 Series resists are formulated with 100% PGMEA, a safer solvent. We recommend AZ EBR 70/30 as a compatible solvent for EBR processing, resist cleaning, basic resist stripping and re-work. AZ 300T, AZ 400T, or AZ Kwik Strip[™] are recommended for typical resist stripping processes.

Handling Precautions / First Aid

Refer to current Material Safety Data Sheet (MSDS) for detailed information prior to handling.

