



SIPR-9332BE10

Thick Film

Positive Photoresist

High Thermal Stability

The SIPR positive photoresist line has been formulated To give outstanding results in thicker photoresist Films. Highly vertical sidewalls are achieved using the SIPR one component positive photoresist. The SIPR one component positive photoresist, by binding sensitizer covalently to the resin, achieves high

resolution with low optical absorption and high aspect ratio. SIPR positive photoresists have been formulated to meet the highly demanding applications of thin film Head manufacturing, high voltage ion implantation And aggressive etch processing.

DoF (3 μm L/S) 605 mJ/cm^2

Dehydration Bake

150°C x 120 sec

HMDS Primed

23°C x 120 sec

Resist Apply

10.0 μm

P.B.

90°C x 120 sec

Exposure

NSR-1755i7A

NA=0.50, $\sigma=0.6$

PEB

None

Development

SSFD-238

(2.38% TMAH)

50 sec x 4 times

-3 μm



-2 μm



-1 μm



± 0 μm



+1 μm



+2 μm



+3 μm



Linearity (10~1.5 μm) 560 mJ/cm^2

Dehydration Bake

150°C x 120 sec

HMDS Primed

23°C x 120 sec

Resist Apply

10.0 μm

P.B.

90°C x 120 sec

Exposure

NSR-1755i7A

NA=0.50, $\sigma=0.6$

PEB

None

Development

SSFD-238

(2.38% TMAH) Puddle

50 sec x 3 times

10 μm



8 μm



6 μm



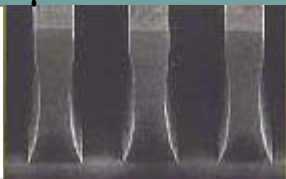
5 μm



4 μm



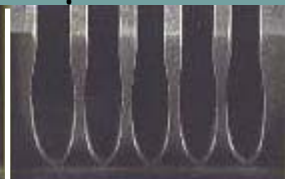
3 μm



2 μm



1.5 μm



SIPR-9332BE10

Thick Film

Positive Photoresist



Dehydration Bake:

150°C x 120 sec

HMDS Primed:

23°C x 120 sec

Resist Apply:

10.0 μm

P.B.:

90°C x 120 sec

Exposure:

NSR-1755i7A

NA=0.50, σ=0.6

PEB:

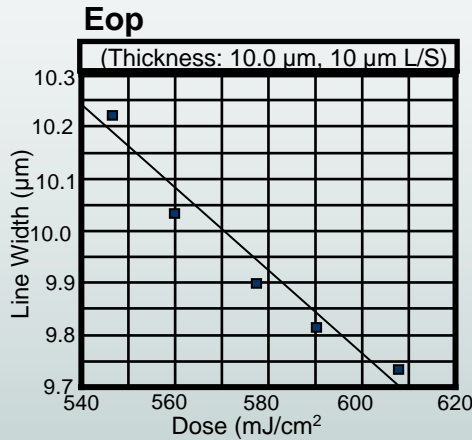
without PEB

Development:

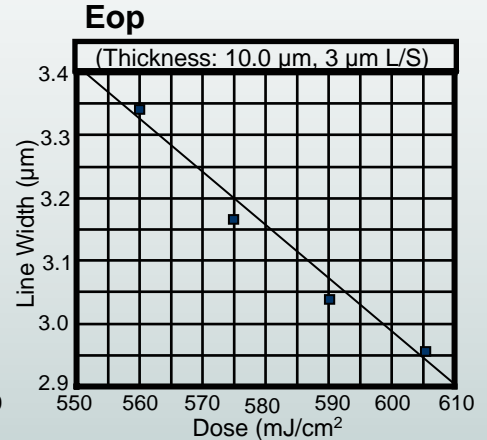
SSFD-238

(2.38% TMAH)

50 sec x 4 times

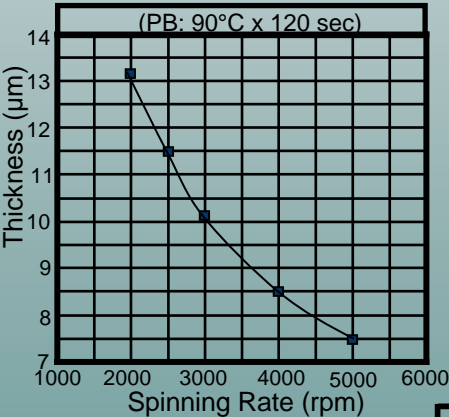


■ 601313 $y=14.467-7.8667e-3x$ $R^2=0.965$



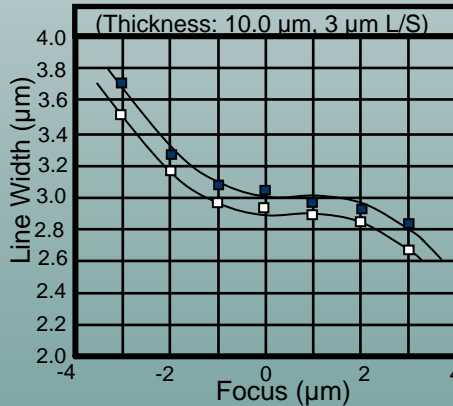
■ 601313 $y=8.1558-8.6400e-3x$ $R^2=0.973$

Thickness



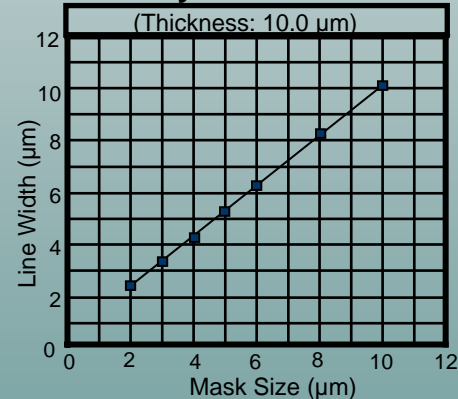
■ Thickness

DoF



■ 590 J/cm² $R^2=0.997$
 $y=3.0057-5.5905e-2x+2.876e-2x^2-1.0167e-2x^3$
 □ 590 J/cm² $R^2=0.997$
 $y=2.9234-4.5905e-2x+2.0429e-2x^2-9.6667e-3x^3$

Linearity



■ 560 mJ/cm²

