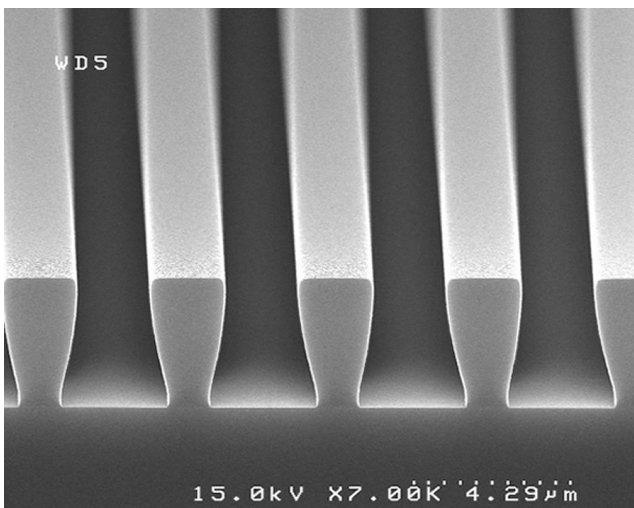


JSR NFR Dyed Photoresists

JSR Micro's NFR series of photoresists are chemically amplified Novalak resin-based, negative-tone resists. A dyed version creates re-entrant sidewall profiles designed for lift off applications. A non-dyed version is also available to create negative images with straight wall profiles. All NFR series resists have been optimized for I-line exposure and are effective for broadband exposure tools. One developer chemistry, PD523AD, is formulated to work with all the NFR series resists.

KEY FEATURES

- Fast and consistent processing with fewer defects or implant errors
- Chemically amplified to generate fully cross-linked Novalak resin with minimal exposure dose required
- Excellent etch properties for implant and electroplating processes
- Broad depth of focus, up to 2 μ m
- High aspect ratio, up to 5:1



Typical Processing Parameters

SUBSTRATE PREPARATION

PRIME

COAT

PREBAKE
90°C @ 90 SECONDS

EXPOSE

POST EXPOSE BAKE
90°C @ 90 SECONDS

DEVELOP IN PD523AD
60 SECONDS
@ ROOM TEMPERATURE

QUICK DI
WATER RINSE

METAL DEPOSITION

RESIST STRIP IN NMP
BASED CHEMISTRIES

JSR NFR Dyed Photoresists

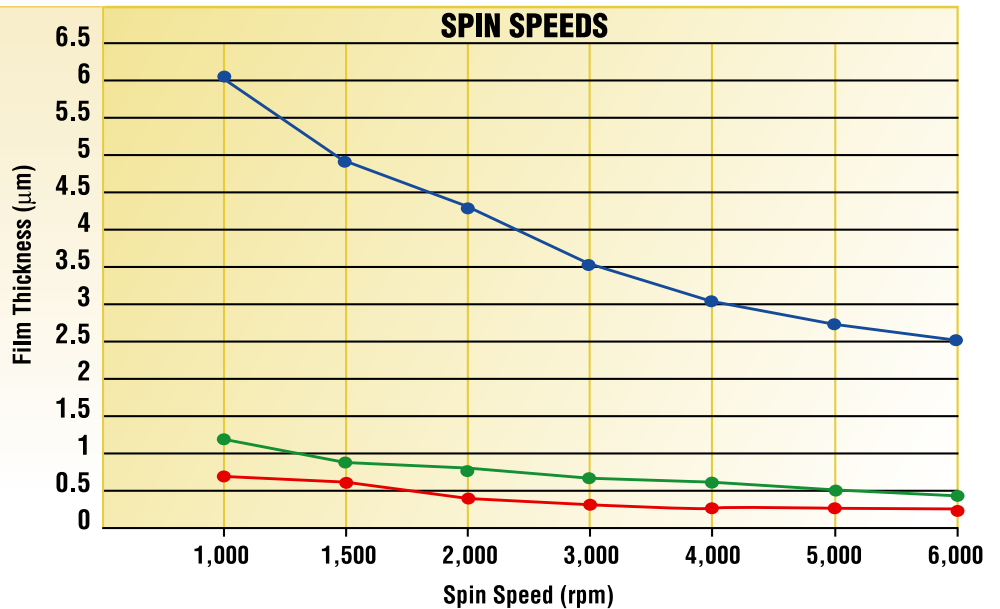
Product Summary

PRODUCT	VISCOSITY	MINIMUM CRITICAL DIMENSIONS	ENERGY DOSE*	PACKAGING
NFR 016 D2	55 cp	0.7 μm at 3 μm F.T.	100 mJ/s	1 Gallon Glass or NOWPak [®]
NFR 111D2H	5 cp	0.4 μm at ~ 1 μm F.T.	200 mJ/s	1 Gallon Glass or NOWPak [®]
NFR 111D2H	7 cp	0.4 μm at ~ 1 μm F.T.	200 mJ/s	1 Gallon Glass or NOWPak [®]

*Energy doses are approximate values.
NOWPak[®] is a registered trademark of ATMI, Inc.

DEVELOPER			
PD523AD Developer			4 x 1 Gallon, Drums or Totes

■ NFR-016D2 55cp ■ NFR-111D2H 7cp ■ NFR-111D2H 5cp



Spin speeds chart details the relationship between spin speed and resist thickness for a 6-inch wafer.

Film thickness can vary slightly due to process, equipment, and temperature variations.

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