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 2μm
- High aspect ratio, up to 5:1

**Typical Processing Parameters**

1. **SUBSTRATE PREPARATION**
2. **PRIME**
3. **COAT**
4. **PREBAKE** 90°C @ 90 SECONDS
5. **EXPOSE**
6. **POST EXPOSE BAKE** 90°C @ 90 SECONDS
7. **DEVELOP IN PD523AD 60 SECONDS @ ROOM TEMPERATURE**
8. **QUICK DI WATER RINSE**
9. **METAL DEPOSITION**
10. **RESIST STRIP IN NMP BASED CHEMISTRIES**
# JSR NFR Dyed Photoresists

## Product Summary

<table>
<thead>
<tr>
<th>PRODUCT</th>
<th>VISCOSITY</th>
<th>MINIMUM CRITICAL DIMENSIONS</th>
<th>ENERGY DOSE</th>
<th>PACKAGING</th>
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<td>55 cp</td>
<td>0.7 µm at 3 µm F.T.</td>
<td>100 mJ/s</td>
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**DEVELOPER**

| PD523AD Developer                                           | 4 x 1 Gallon, Drums or Totes |

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

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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To further discuss how Doe & Ingalls can support your chemical requirements, contact us at 1301 Person Street, Durham, NC 27703

919-598-1986

www.doeingalls.com

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Doe & Ingalls, LLC

"Chemicals for Clean Manufacturing Technologies"

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

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