Product Information

NXR-1025 Nanoimprint Resist (Thermoplastic)

NXR-1025 nanoimprint resist is designed not only for sub-10 nm patterning in nanostructure engineering in the near future, but also for today’s micro- and nano-patterning. NXR-1025 nanoimprint resist offers ease of handling and processing, good flow characteristic at imprint temperature, and good thermal stability at room temperature. It has been thoroughly tested on our imprint machines.

Film casting:

NXR-1025 nanoimprint resist can be spin-coated using a standard spinner. Uniform thin films can be formed on a substrate by spin-coating using a standard spinner. Filtering through a 0.2-µm filter is recommended when applying the resist to wafers. Residual solvent in the resist film can be further driven out by baking on a hotplate at 150°C for 1 minute, or at 80°C for 30 minutes in a vacuum oven. The resist film can be prepared up to microns in thickness, depending on resist concentration and spin-coating conditions. We recommend keeping the resist solution in a refrigerator when it is not in use.

Imprinting:

NXR-1025 nanoimprint resist is typically imprinted at 120°C and 200 psi (or 15 bar) with high resolution and excellent pattern transfer fidelity. It can be etched in oxygen plasma.

Stripping:

NXR-1025 nanoimprint resist can dissolve in acetone before oxygen plasma etching, and NH₄OH:H₂O₂:H₂O (1:1:5 volume ratio, 70-80°C) after oxygen plasma etching.