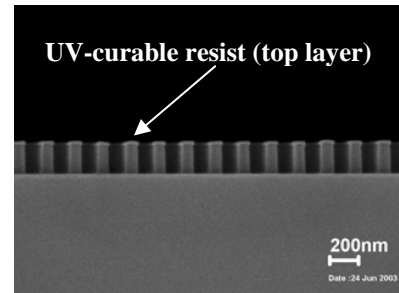


Product Information

NXR-2010 UV-Curable Resist



NXR-2010 UV-curable 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-2010 nanoimprint resist offers ease of handling and processing, room-temperature and low pressure imprinting, and high etching selectivity to NXR-3010 or NXR-3022 under-layer resist in oxygen plasma. It has been thoroughly tested on our nanoimprinters.

Film casting:

NXR-2010 UV-curable resist can be spin-coated using a standard spinner in an environment with ultraviolet light filtered out. A filter (0.2 μm) is recommended to use when applying the resist to wafers. The resist film can be prepared in thicknesses from a few tens of nanometers up to several hundreds of nanometers, depending on resist concentration and spin-coating conditions. To preserve resist and protect the under-layer, no soft baking is recommended after spin coating of this resist.

When not in use, the resist solution should be kept in a cool and dark place.

Imprinting and post processing:

To be used as an imaging layer on top, NXR-2010 UV-curable resist typically works together with NXR-3010 or NXR-3022 under-layer resist. On top of an under-layer, the liquid film of NXR-2010 is UV-imprinted by using an imprinting mold. The resist is well cross-linked using 200-400nm UV light in an oxygen-free environment. Mold patterns are then transferred into solid resist structures with high resolution and excellent fidelity. On 4-inch wafer level, the liquid UV resist can be imprinted at about 30psi and cross-linked at a dosage of about 40mJ/cm².

NXR-2010 resist can be etched by fluorinated plasma; in oxygen plasma, it provides etching selectivity of greater than 10 against NXR-3010 and NXR-3022 under-layer resist.

Stripping:

NXR-2010 UV-curable resist can be removed in fluorinated plasma.

