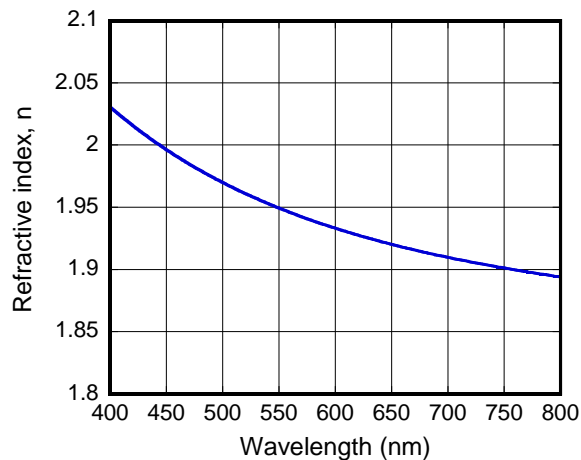




HighRI-Nano1.93

(Nanocomposite with Refractive Index 1.93)

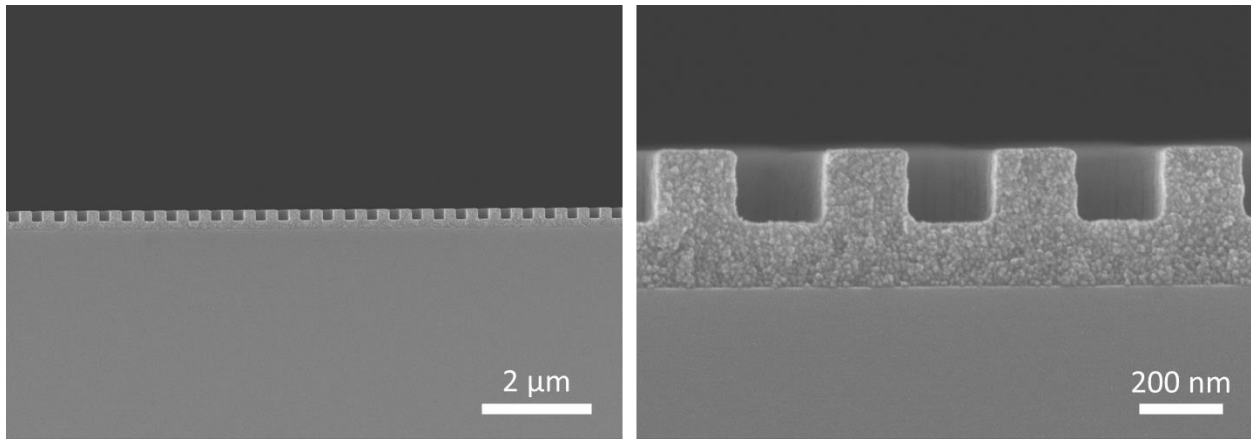
This material presents a high refractive index, 1.93, and consists of a nanocomposite containing nanocrystals and a polymeric binder. It is a spin-on solution, specifically developed for UV imprinting.



Refractive index vs. Wavelength of **HighRI-Nano1.93**

| | |
|-------------------------------------------|-------------------------------------------|
| Chemical Type | Acrylates |
| Refractive Index @ 590 nm | 1.93 |
| Appearance | Liquid Phase |
| Solvent | Cyclopentanone |
| Curing type | UV light |
| Curing conditions | 2.5 J/cm ² (365 nm wavelength) |
| Transparency @ 400nm | > 90% (1 μm thick film) |
| Dispensing Method | Spin coating |
| Nanoimprint Lithography Capability | Yes |

- The solution should be stored in the fridge.
- Oxygen may inhibit surface cure.



SEM cross-section of imprinted gratings with HighRI-Nano1.93.



Spin-Coated Film of HighRI-Nano1.93 (600 nm thickness) on a 4-inch wafer.