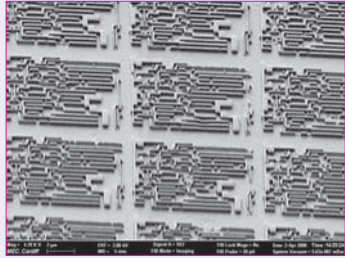
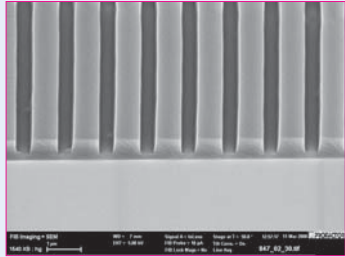


OrmoStamp

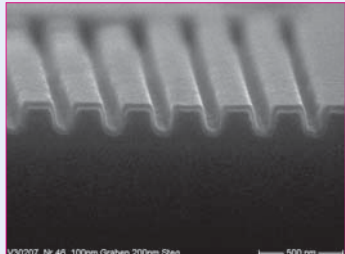
ORMOCER® Hybrid Polymer System for Nano and Micro Stamp Fabrication



Nanostructures (smallest one 60 nm);
 SFIL-stamp made of OrmoStamp
 (University of Cardiff)



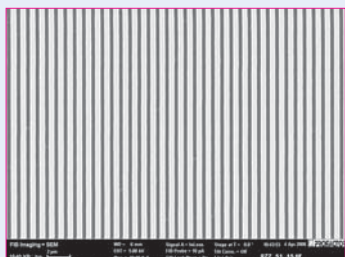
Cross-section of mr-UVCur06 imprinted with
 OrmoStamp, 300 nm lines and 900 nm spaces
 (Profactor GmbH)



mr-NIL 6000 structures, imprinted with
 OrmoStamp, 100 nm lines



mr-UVCur06 mit UD15-Stempel G - 32. Imprint
 mr-UVCur06 structures
 (32nd imprint with OrmoStamp)

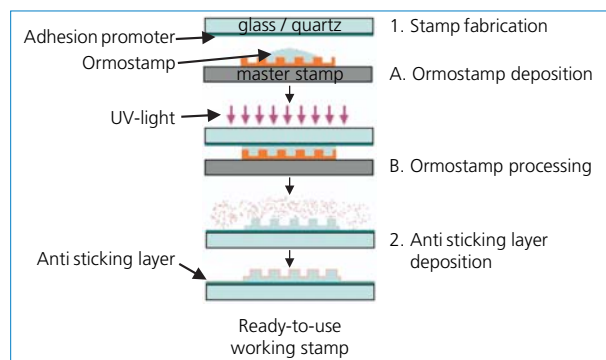


51st mr-UVCur06 imprint: 200 nm lines and
 600 nm spaces (imprinted with OrmoStamp)
 (Profactor GmbH)

Unique features of OrmoStamp

- Material for transparent stamp fabrication in imprint lithography
- Cost efficient alternative to silica stamps
- Excellent fidelity to the master stamp at over 50 imprints
- High resolution to sub-100 nm linewidth
- Convenient processing with standard lithography equipment
- Highly transparent in nearUV and visible light
- Mechanically and thermally stable
- Shelf life 6 months

Stamp fabrication



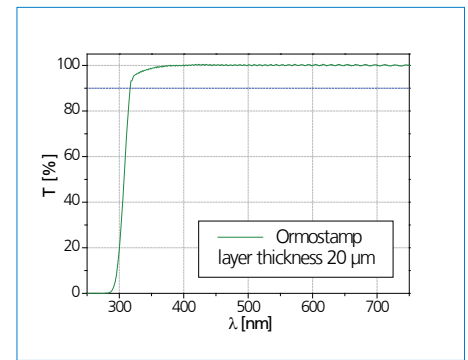
Technical data of OrmoStamp

Thermal stability (short term)	up to 270 °C
Rms roughness (initial)	2.2 nm
Rms roughness after 30 imprints	2.3 nm
Refractive index @ 633 nm	1.526
Exposure dose @ 365 nm	300 – 6000 mJ cm ⁻²
CTE (20 – 100 °C)	105 ppm K ⁻¹

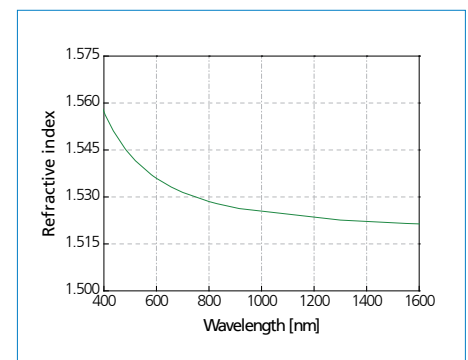
Applications

- For nano and micro imprinting
- For UV-based and thermal imprints

Transparency



Optical dispersion curve



Spin curve

