**Thermosetting Polymers for Nanoimprint Lithography**

**mr-I 9000E – Thermoset for Pattern Transfer**

**Unique features**
- Application by spin coating, film thickness 100 – 300 nm
- Short imprint cycle times
- Thermal curing during imprint
- Very low residual layer thickness down to 5 nm
- Excellent pattern transfer fidelity
- Residue-free removal by oxygen plasma etching

**Applications**
- Coating of various substrate materials (e.g. Si, SiO₂, Al)
- Mask for pattern transfer processes
- Single and multilayer systems

**mr-I 9000M – Thermoset for Micro and Nanofabrication**

**Unique features**
- Application by spin coating, film thickness 300 nm – 1 μm
- Simultaneous imprint of nano and micropatterns
- Thermal curing during imprint
- Isothermal mould detachment (no cooling phase)
- Excellent pattern transfer fidelity
- Thermal stability of imprinted patterns up to 260 °C

**Applications**
- Coating of various substrate materials (e.g. Si, SiO₂, Al)
- Fabrication of micro and nanopatterns for permanent applications
- Micro and nanopatterns with high thermal stability requirements
- Single and multilayer systems

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**Nanoimprint process cycle**

**Temperature [°C]**

**Time**

**Pressure [bar]**

Imprinting temperature 120 °C, Mould detachment at 100 °C

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100 nm trenches, 300 nm pitch imprinted in mr-I 9000M