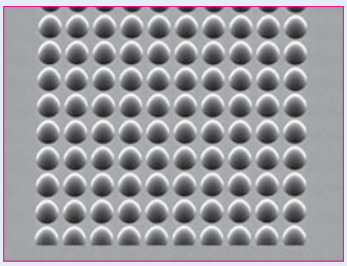
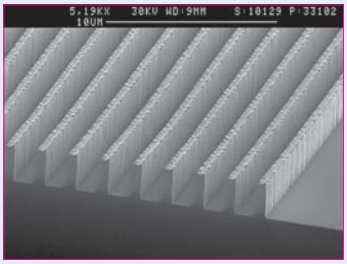
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Telephone +49 30 65762192
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Ormocomp — UV Curable Hybrid Polymer for Moulding

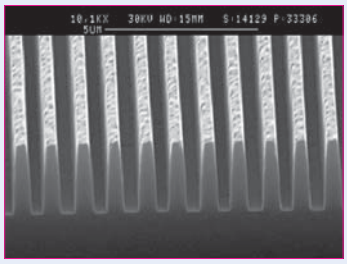
ORMOCER® for Microoptical Components Produced by UV moulding



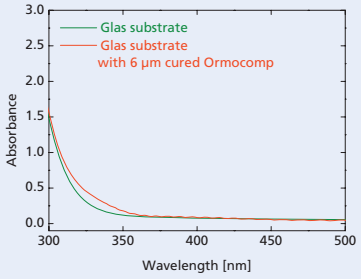
Replicated 10x10 micro lens array
FHG -IOF Jena/ Germany

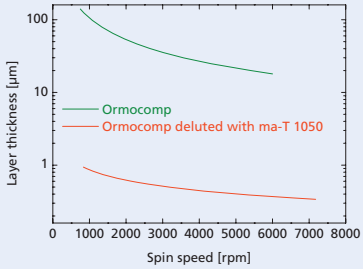


Optical grating
FSU - Jena/ Germany



Optical grating
FHG -IOF Jena/ Germany





Unique features

Ormocomp - UV curable material for imprinting

- UV patterning (lithography/ moulding)
- Exposure: i-line, broadband
- Fast curing
- Shrink during curing 5 - 7 Vol.%
- Thermally stable up to 270 °C
- 6 months shelf life
- Solvent free

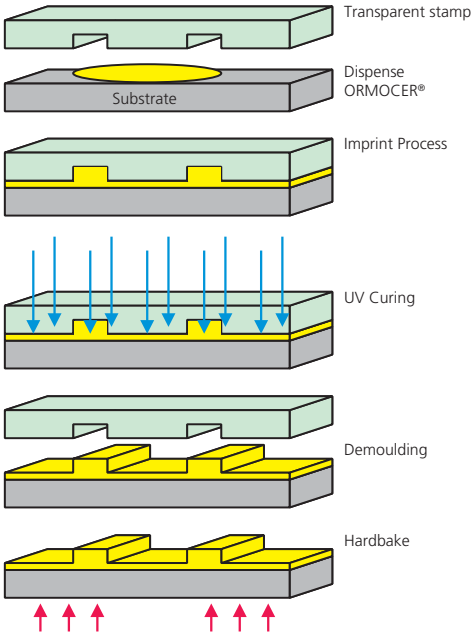
Applications

For manufacture of

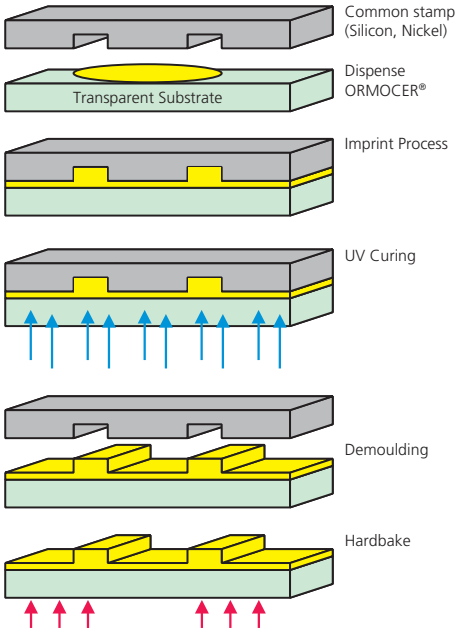
- Moulded gratings
- Micro lenses
- Micro lens arrays
- Optical couplers and connectors
- Prisms

Process flow UV moulding

< transparent stamp >



< common stamp >



Technical data

Properties of the cured materials	Ormocomp
Thermal stability	Weight loss < 5 % up to 270 °C (5 K min^{-1})
Film quality	Good planarisation properties
Thermal behaviour	duromeric
Water absorption	< 0.5 %
CTE (20 - 100 °C)	100 - 130 ppm K^{-1}
rms roughness	2 - 4 nm
Shrinkage (during curing)	5 - 7 Vol.-%
Refractive index @ 635 nm	1.518

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