

OPTICAL MICROSTRUCTURES



Fraunhofer

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In the rapidly evolving world of display and optical technologies, the demand for advanced materials and innovative processing techniques is higher than ever. Next-generation devices require materials that excel in optical, chemical, thermal, and mechanical stability. Plus, they need to be capable of free-form and high aspect ratio patterning.

HYBRID POLYMERS FOR MICROOPTICS

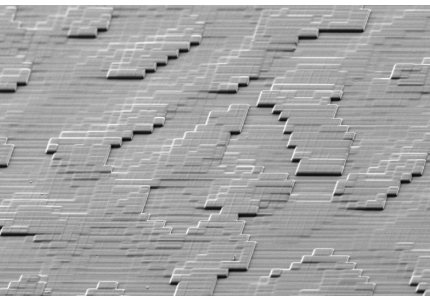
Introducing our UV- and thermally curable hybrid polymers, ORMOCER®s, which are specifically developed for microoptical applications.

- Exceptionally high optical transmission
- Adjustable refractive index
- Long-term stability under harsh conditions

TAILORED SOLUTIONS FOR YOUR NEEDS

We customize materials and patterning techniques to meet diverse processing requirements, including:

- Wafer-scale production of micro-lens arrays
- Optical structures on panels
- Cost-effective substrates with limited temperature budgets



*Picture: Multi-Level Diffractive Optical Element (DOE)
processed via Two-Photon-Polymerization of Optical
ORMOCER®*

When combined with techniques like nanoimprint lithography and Two-Photon Polymerization, our materials create outstanding optical microstructures for replication, enabling intricate optical designs at an affordable cost.

If you're seeking materials and technologies to bring your innovative designs to life, we are here to support you with our proven expertise and knowledge!

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