

HYBRID POLYMERS AND COMPOSITES

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WANTED

Versatile thermoset materials with outstanding properties for applications in display and optics. Tailored at the molecular level, these materials offer a performance profile that surpasses purely organic polymers.

APPLICATIONS

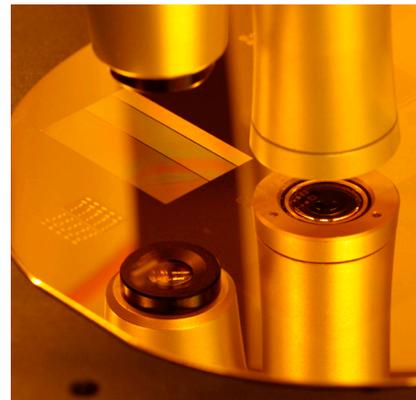
- 2D, 2.5D, and 3D micro and nanopatterning
- Optical microstructures
- Customized materials for electronic packaging
- Functionalization
- High stability at elevated temperatures and light exposure
- Adjustment of etch behavior

ADVANTAGES

ORMOCER® materials combine high thermal stability (>300 °C) with moderate curing temperatures (80 - 170 °C). They offer excellent optical transmission, tailored refractive indices, strong adhesion, low water uptake, and minimal outgassing. With low permittivity (ϵ_r : 2.5 @ 100 kHz) and dielectric loss, they ensure high performance as insulation material. Compounding with additives allows for conductive composites, extended refractive indices and permittivities, and the integration of magnetic, piezoelectric, or quantum dot nanoparticles. Solvent-free formulations are also possible.

COLLABORATION

Please contact us with a description of your challenges. We will consult with you or suggest material development precisely tailored to your needs. Materials are formulated according to your preferred processing techniques. We are here to help you realize future technologies by enabling the right materials.



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