upquartz

Resin data sheet

Essential properties
and resin characteristics

2-photon silica slurry

UpNano has developed a nanocomposite slurry for manufacturing fused silica (SiO_2) parts using 2-photon polymerization, in cooperation with Glassomer. Printed green parts are converted into fused silica by thermal debinding and sintering. After high-temperature treatment, the 2PP-processed parts exhibit the characteristic properties of fused silica glass.

Print set-up

Objectives:
5x, 10x

Print mode:
vat

powered by Glassomer

Bending strength	115 MPa
Density	2.2 g/cm^3
Vickers hardness	980 HV
Thermal expansion α_{30-500}	0.56 × 10^{-6} K^{-1}
Abbe number	67.8
Contact angle – H_2O	36°
UV transmission at 200 nm*	>84%
Refractive index at 589 nm	1.4589

* Sample thickness 1 mm

upnano

+43 (0)1 890 16 52 | office@upnano.com | www.upnano.com