

RR355-101-TGH

Manufactured by Spectra Photopolymers



Impact resistant resin perfect for low friction applications and squeezable prototypes

- Squeezable prototypes
- Low friction and non-degrading surfaces
- Impact resistant jigs
- Polyethylene-like strength and stiffness



RR355-101-TGH Resin is a versatile material renowned for its outstanding impact resistance and lubricating properties. It represents the optimal selection for manufacturing sturdy, flexible components, exceptionally well-suited for applications in assemblies where reducing friction is essential.

MATERIAL PROPERTIES DATA

RR355-101-TGH Resin

	METRIC 1		IMPERIAL 1		METHOD
	Green	Post-Cured	Green	Post-Cured	
Tensile Properties					
Ultimate Tensile Strength	13 MPa	28 MPa	1900 psi	3980 psi	ASTM D638-14
Tensile Modulus	0.24 GPa	1.0 GPa	34 ksi	149 ksi	ASTM D638-14
Elongation at Break	75%	55%	75%	55%	ASTM D638-14
Flexural Properties					
Flexural Strength	1.0 MPa	24 MPa	149 psi	3420 psi	ASTM D 790-15
Flexural Modulus	0.04 GPa	0.66 GPa	5.58 ksi	94.1 ksi	ASTM D 790-15
Impact Properties					
Notched IZOD	127 J/m	114 J/m	2.37 ft-lbf/in	2.13 ft-lbf/in	ASTM D 256-10
Unnotched IZOD	972 J/m	710 J/m	18.2 ft-lbf/in	13.3 ft-lbf/in	ASTM D4812-11
Thermal Properties					
Heat Deflection Temp. @ 0.45 MPa	< 30 °C	41 °C	< 86 °F	105 °F	ASTM D 648-16
Thermal Expansion (0-150°C)	124 µm/m/°C	106 µm/m/°C	69.1 µin/in/°F	59 µin/in/°F	ASTM E 831-13

SOLVENT COMPATIBILITY

Percent weight gain over 24 hours for a printed and post-cured 1 x 1 x 1 cm cube immersed in respective solvent:

Solvent	24 hr weight gain, %	Solvent	24 hr weight gain, %
Acetic Acid 5%	1.3	Isooctane (aka gasoline)	< 1
Acetone	Sample cracked	Mineral oil (light)	< 1
Isopropyl Alcohol	5.1	Mineral oil (Heavy)	< 1
Bleach ~5% NaOCl	< 1	Salt Water (3.5% NaCl)	< 1
Butyl Acetate	7.9	Sodium Hydroxide solution (0.025% PH 10)	< 1
Diesel Fuel	< 1	Water	< 1
Diethyl glycol monomethyl ether	7.8	Xylene	6.5
Hydraulic Oil	< 1	Strong Acid (HCl conc)	Distorted
Skydrol 5	1.3	Xylene	6.5
Hydrogen peroxide (3%)	1		