

RR355-100-TGH Resin

Manufactured by Spectra photopolymers



Resin for Rugged Prototyping

- ABS-like strength and stiffness
- Sturdy jigs and fixtures
- Strong and stiff prototypes



RR355-100-TGH Resin stands as the most robust and rigid member within our range of engineering resins. Opt for RR355-100-TGH Resin when creating prototypes for robust and unyielding components that require minimal flexing. - Elevate your projects with the unmatched strength.

RR355-100-TGH Resin Resin Material Properties Data

	METRIC1		IMPERIAL1		METHOD
	Green	Post-Cured	Green	Post-Cured	
Mechanical Properties					
Ultimate Tensile Strength	29 MPa	46 MPa	4206 psi	6671 psi	ASTM D 638-14
Tensile Modulus	1.2 GPa	2.2 GPa	174 ksi	329 ksi	ASTM D 638-14
Elongation at Break	74 %	48 %	74 %	48 %	ASTM D 638-14
Flexural Properties					
Flexural Strength	17 MPa	65 MPa	2465 psi	9427 psi	ASTM D 790-15
Flexural Modulus	0.45 GPa	1.9 GPa	65 ksi	275 ksi	ASTM D 790-15
Impact Properties					
Notched IZOD	79 J/m	40 J/m	1.5 ft-lbf/in	0.75 ft-lbf/in	ASTM D256-10
Unnotched IZOD	208 J/m	715 J/m	3.9 ft-lbf/in	13 ft-lbf/in	ASTM D4812-11
Thermal Properties					
Heat Deflection Temp. @ 1.8 MPa	42 °C	53 °C	108 °F	127 °F	ASTM D 648-16
Heat Deflection Temp. @ 0.45 MPa	48 °C	63 °C	118 °F	145 °F	ASTM D 648-16
Coefficient of Thermal Expansion	107 µm/m/°C	91 µm/m/°C	59 µin/in/°F	50 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 Hour Weight Gain (%)	Solvent	24 Hour Weight Gain (%)
Acetic Acid, 5 %	0.71	Hydrogen Peroxide (3 %)	0.63
Acetone	18.82	Isooctane	0.03
Isopropyl Alcohol	3.7	Mineral Oil, light	0.13
Bleach, ~5 % NaOCl	0.56	Mineral Oil, heavy	0.17
Butyl Acetate	6.19	Salt Water (3.5 % NaCl)	0.56
Diesel	0.06	Sodium hydroxide (0.025 %, pH = 10)	0.61
Diethyl glycol monomethyl ether	5.32	Water	0.61
Hydraulic Oil	0.08	Xylene	4.1
Skydrol 5	0.87	Strong Acid (HCl Conc)	3.01