



Flexible Resin - Technical Data Sheet

Material Properties Data

	METRIC ¹		IMPERIAL ¹		METHOD
	Green	Post-Cured ²	Green	Post-Cured ²	
Mechanical Properties					
Ultimate Tensile Strength ³	3.3 - 3.4 MPa	7.7 - 8.5 MPa	483 - 494 psi	110 - 1230 psi	ASTM D 412-06 (A)
Elongation at Failure ³	60 %	75 - 85 %	60 %	75 - 85 %	ASTM D 412-06 (A)
Compression Set ^{4,5}	0.40 %	0.40 %	0.40 %	0.40 %	ASTM D 395-03 (B)
Tear Strength	9.5 - 9.6 kN/m	13.3 - 14.1 kN/m	54 - 55 lbf/in	76 - 80 lbf/in	ASTM D 624-00
Shore Hardness	70 - 75 A	80 - 85 A	70 - 75 A	80 - 85 A	ASTM 2240
Thermal Properties					
Vicat Softening Point ⁶	231 °C	230 °C	448 °F	446 °F	ASTM D 1525-09

¹ Material properties can vary with part geometry, print orientation, print settings and temperature.

² Data was obtained from parts printed using Form 2, 100 µm, Flexible settings and post-cured with 80.5 mW/cm² of 365 nm fluorescent light for 60 minutes.

³ Tensile testing was performed after 3+ hours at 23 °C, using a Die C dumbbell and 20 in/min cross head speed.

⁴ Compression testing was performed at 23 °C after aging at 23 °C for 22 hours.

⁵ Tear testing was performed after 3+ hours at 23 °C, using a Die C tear specimen and a 20 in/min cross head speed.

⁶ Thermal testing was performed after 40+ hours with a 10 N loading at 50 °C/hour. Cracks formed in samples during testing.

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	Sodium hydroxide (0.025 %, pH = 10)	1
Acetone	33	Xylene	29
Isopropyl Alcohol	9.8		
Bleach, ~5 % NaOCl	1.1		
Butyl Acetate	16		
Diethyl glycol monomethyl ether	30		
Hydrogen Peroxide (3 %)	1.3		
Isooctane	< 1		
Salt Water (3.5 % NaCl)	< 1		