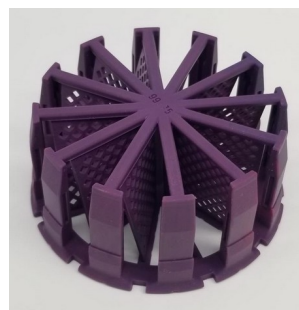


# PRIMARY MFG

## UMA 90 DLS



UMA 90 is an easy-to-use single cure resin with enhanced toughness, appropriate for use in prototypes and manufacturing jigs and fixtures.

<b>Tensile Properties, ASTM D638, Type I</b>	Metric	US.
Tensile Modulus	1400 MPa	200 KSI
Ultimate Tensile Strength	30 MPa	4.4 KSI
Yield Strain	7%	7%
Elongation at Break	30%	
<b>Flexural Properties, ASTM D790-B</b>		
Flexural Stress at 5% strain	50 MPa	7 KSI
Flexural Modulus (Chord, 0.5-1%)	1200 MPa	174 KSI
<b>Impact Properties</b>		
Notched Izod (Machined Notch), 23 °C, ASTM D256	30 J/m	0.6 Ft-lbs/in
Notched Charpy (Machined Notch), ISO 179-1/1eA	2.8 kJ/m <sup>2</sup>	1.3 ft-lb/in <sup>2</sup>
<b>Thermal Properties</b>		
Heat Deflection Temperature at 0.455 MPa/66 psi, ASTM D648	45 °C	113 °F
<b>General Properties</b>		
Density, ASTM D792	1.20 g/cm <sup>3</sup>	0.043 lb/in <sup>3</sup>
Hardness, ASTM D2240	86, Shore D	