



polySpectra

COR Alpha

COR Alpha photopolymer resins boast a best-in-class combination of toughness, temperature stability, biocompatibility and chemical resistance, empowering polySpectra partners to realize uncharted applications of production additive manufacturing.

Mechanical Properties	Metric	U.S.	Method
Tensile Modulus	2.0 GPa	290 ksi	ASTM D638
Ultimate Tensile Strength	66 MPa	9.6 ksi	ASTM D638
Elongation at Break	>20%		ASTM D638
Flexural Modulus	1.6 GPa	232 ksi	ASTM D790
Ultimate Flexural Strength	53 MPa	7.7 ksi	ASTM D790
Hardness, Shore D	84		ASTM D2240
Impact Strength	35 J/m		ASTM D256
Thermal Properties	Metric	U.S.	
Heat Deflection Temperature @ 1.82 MPa/264 psi	136 °C	277 °F	ASTM D648
Coefficient of Thermal Expansion (CTE), from -54 to 121°C/ -65 to 250°F	105 ppm/°C	49 ppm/°F	ASTM E831
Water Stability	Results		Method
Water Absorption, 24 hours	0.079%		ASTM D570
Water Absorption, saturation	0.191%		ASTM D570
Biocompatibility	Results		
Cytotoxicity	Grade 0		ISO 10995-5
Electrical Properties	Results		Method
Dissipation Factor, 1 MHz	0.0058		ASTM D150
Dielectric Constant, 1 MHz	2.66		ASTM D150
Dielectric Breakdown Strength	22.5 kV/mm		

Make it real.