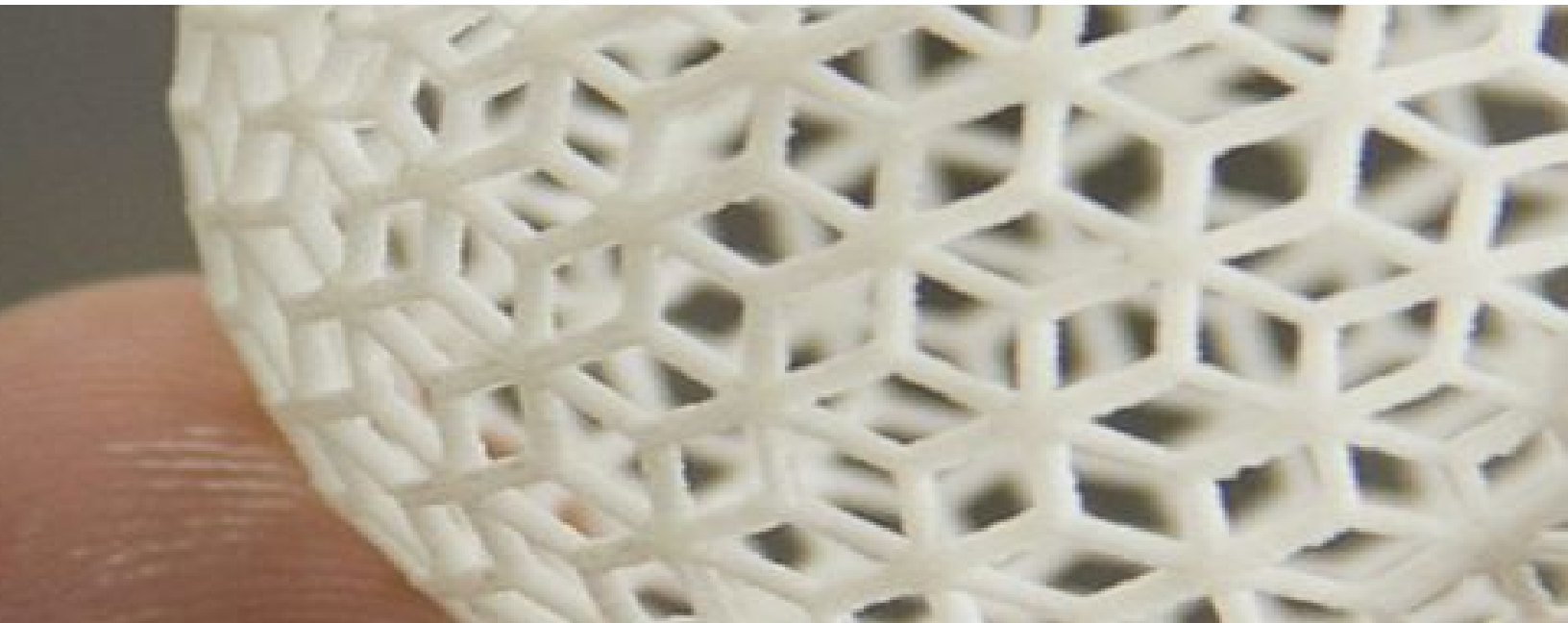


Additive Inc - **RAPID PROTOTYPING**

Professional 3D Printing -Ultem



Call: (800) 479-4330 /
www.additiveinc.com

The information presented are typical values intended for reference and comparison purposes only. They should not be used for design specifications or quality control purposes. Actual values will vary with build conditions.



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About Us

Additive, Inc is among leading rapid prototyping companies specializing in high quality FDM (Fused Deposition Modeling) and PolyJet rapid prototyping services. The FDM process is ideal for conceptual modeling, functional prototyping, manufacturing tools, and end-use-parts. While the PolyJet process will produce high quality and fine detailed prototypes. Whatever your rapid prototyper needs, Additive, Inc will be able to quickly produce your parts.

Get your parts FAST! We own and operate all of our FDM and PolyJet rapid prototyping services machines. This means we don't have to send your parts to a secondary service bureau and mark-up the price, making the process faster and more affordable for you.

Additive, Inc (among leading rapid prototyping companies) provides you or your company the tools for a fast, easy and affordable rapid prototyper.

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Ultem



ULTEM is known for its high thermal performance and strength-to-weight ratio. Used by many in the transportation industry, ULTEM prototypes can be made for fully functional parts or as functional prototypes in heat sensitive applications. This flame retardant, high performance thermoplastic can meet the demands of your heat resistant application and perform well as a functional prototype or final part saving you thousands of dollars when compared to the costs of traditional tooling.

Details

MECHANICAL PROPERTIES	TEST METHOD	ENGLISH	METRIC
Tensile Strength (Type 1, 0.125", 0.2"/min)	ASTM D638	10,400 psi	71.6 MPa
Tensile Modulus (Type 1, 0.125", 0.2"/min)	ASTM D638	322 kpsi	2,200 MPa
Tensile Elongation (Type 1, 0.125", 0.2"/min)	ASTM D638	6%	6%
Flexural Strength (Method 1, 0.05"/min)	ASTM D790	16,700 psi	115.1 MPa
IZOD Impact, notched (Method A, 23°C)	ASTM D256	2.0 ft-lb f/in	106 J/m
IZOD Impact, un-notched (Method A, 23°C)	ASTM D256	11.5 ft-lb f/in	613.8 J/m
Compression Strength	ASTM D695	15.2 ksi	104 MPa
Compression Modulus	ASTM D732	280 ksi	1930 MPa
Shear Strength (0.25" thick coupon)	ASTM D732	8.3 ksi	57 MPa

THERMAL PROPERTIES	TEST METHOD	ENGLISH	METRIC
Heat Deflection(HDT)@ 66 psi, 0.125" unannealed	-----	-----	-----
Heat Deflection(HDT)@ 264 psi, 0.125"	ASTM D648	307°F	153°C

unannealed			
Glass Transition Temperature (Tg)	DMA (SSYS)	367°F	186°C
Coefficient of Thermal Expansion	ASTM E228	3.67e-05 in/(in·F°)	65.27 μm/(m·C°)
Melt Point	-----	Not Applicable	Not Applicable

ELECTRICAL PROPERTIES	TEST METHOD	VALUE RANGE
Volume Resistivity	ASTM D257	1.0 x 10e14 - 6.0 x 10e13 ohms
Dielectric Constant	ASTM D150-98	3.2 - 3.0
Dissipation Factor	ASTM D150-98	.0027 - .0026
Dielectric Strength	ASTM D149-09, Method A	290 - 110 V/mm

OTHER	TEST METHOD	VALUE RANGE
Specific Gravity	ASTM D792	1.08
Rockwell Hardness	ASTM D785	R108
Flame Classification	UL 94	HB (0.059", 1.5 mm)