

Accura[®] PEAK[™] Plastic

PRELIMINARY



Applications

- High temperature requirements
- Test of water and fluid handling components
- Wind tunnel models
- Master patterns
- Fixtures, gages and jigs

Features

- High stiffness
- Excellent accuracy
- Best in class moisture stability
- Elevated temperature resistance

Benefits

- Stable and rigid parts that withstand adverse environments.
- Outstanding stiffness for demanding applications.
- Ideal for parts requiring high thermal and moisture resistance.



Accura[®] PEAK[™] Plastic

For use with solid-state stereolithography (SLA[®]) Systems

PRELIMINARY

Technical Data

Liquid Material

Measurement	Condition	Value
Appearance		Amber
Liquid Density	@ 25 °C (77 °F)	1.32 g/cm
Solid Density	@ 25 °C (77 °F)	1.36 g/cm ³
Viscosity	@ 30 °C (86 °F)	605 cps
Penetration Depth (Dp)*		5.6 mils
Critical Exposure (Ec)*		11.5 mJ/cm ²

Post-Cured Material

Measurement	Condition	Metric	U.S.
Tensile Strength	ASTM D 638	57 - 78 MPa	8,270 - 11,320 PSI
Tensile Modulus	ASTM D 638	4,220 - 4,790 MPa	612 - 695 KSI
Elongation at Break (%)	ASTM D 638	1.3 - 2.5 %	1.3 - 2.5 %
Flexural Strength	ASTM D 790	77 - 126 MPa	11,170 - 18,380 PSI
Flexural Modulus	ASTM D 790	4,180 - 4,790 MPa	606 - 695 KSI
Impact Strength (Izod Notched)	ASTM D 256	21.3 - 27.3 J/m	0.4 - 0.5 ft-lb/in
Heat Deflection	ASTM D648 @ 66 PSI @ 264 PSI	78 °C 59 °C	172 °F 138 °F
Heat Deflection (with 120 °C thermal postcure)	ASTM D648 @ 66 PSI @ 264 PSI	153 °C 124 °C	307 °F 255 °F
Co-Efficient of Thermal Expansion	ASTM E 831-93 TMA (T<Tg, 0-50 °C) TMA (T<Tg, 50-120 °C)	48 mm/m -°C 92 mm/m -°C	27 min/in -°F 51 min/in -°F
Glass Transition (Tg) with 120 °C thermal postcure	DMA, E''	104 °C 110 °C	219 °F 230 °F
Hardness, Shore D		86	86

* Dp/Ec values are the same on all solid-state laser SLA[®] Systems.



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