

Accura[®] 60 Plastic



The high clarity of Accura[®] 60 Plastic allows for the easy study of fluid flow and the ability to visualize internal features and structures.

Simulate the properties and appearance of polycarbonate with this clear, tough plastic.

Applications

- Tough functional prototypes
- Automotive design components
- Consumer electronics (cell phones etc.)
- Medical instruments, devices and labware
- Lighting components (lenses etc.)
- Fluid flow and visualization models
- Master patterns for urethane castings
- QuickCast™ patterns for investment casting
- Transparent assemblies
- Clear display models
- Concept and marketing models

Features

- Durable and stiff
- High clarity
- Fast build speed
- Low viscosity formulation
- Fully developed and tested build styles



Benefits

- Achieve the look and feel of polycarbonate
- View internal features and passages
- Increase system throughput
- Minimize part cleaning and finishing
- Maximize reliability with no user R&D



Accura[®] 60 Plastic

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

"Accura[®] 60 has such amazing clarity. Our automotive customers consistently choose it for lenses and other clear applications that require a finished, production part look but delivered with SL speed. Accura[®] 60's ability to resist humidity and maintain dimensional accuracy makes it an excellent choice not only for standard check models but also for investment casting patterns using the QuickCast[™] build style."

Jason Dickman-President
American Precision
Prototypes LLC



Technical Data

Liquid Material

Measurement	Condition	Value
Appearance		Clear
Liquid Density	@ 25 °C (77 °F)	1.13 g/cm ³
Solid Density	@ 25 °C (77 °F)	1.21 g/cm ³
Viscosity	@ 30 °C (86 °F)	150 - 180 cps
Penetration Depth (Dp)*		6.3 mils
Critical Exposure(Ec)*		7.6 mJ/cm ²
Tested Build Styles		EXACT [™] , FAST [™] , QuickCast [™]

Post-Cured Material

Measurement	Condition	Metric	U.S.
Tensile Strength	ASTM D 638	58-68 MPa	
Tensile Modulus	ASTM D 638	2,690-3,100 MPa	260 - 287 KSI
Elongation at Break (%)	ASTM D 638	5 - 13 %	14 - 22 %
Flexural Strength	ASTM D 790	87-101 MPa	7540 - 10300 PSI
Flexural Modulus	ASTM D 790	2,700-3,000 MPa	220 - 300 KSI
Impact Strength (Notched Izod)	ASTM D 256	15-25 J/m	0.66 - 0.98 ft-lb/in
Heat Deflection Temperature	ASTM D 648 @ 66 PSI @ 264 PSI	53-55 °C 48-50 °C	127-131 °F 118-122 °F
Hardness, Shore D		86	
Co-Efficient of Thermal Expansion	ASTM E 831-93 TMA (T<Tg, 0-40 °C) TMA (T<Tg, 75-140 °C)	71-131 μm/m-°C 153 μm/m-°C	
Glass Transition (Tg)	DMA, E"	58 °C	136 °F

* Dp/Ec values are the same on all systems.



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