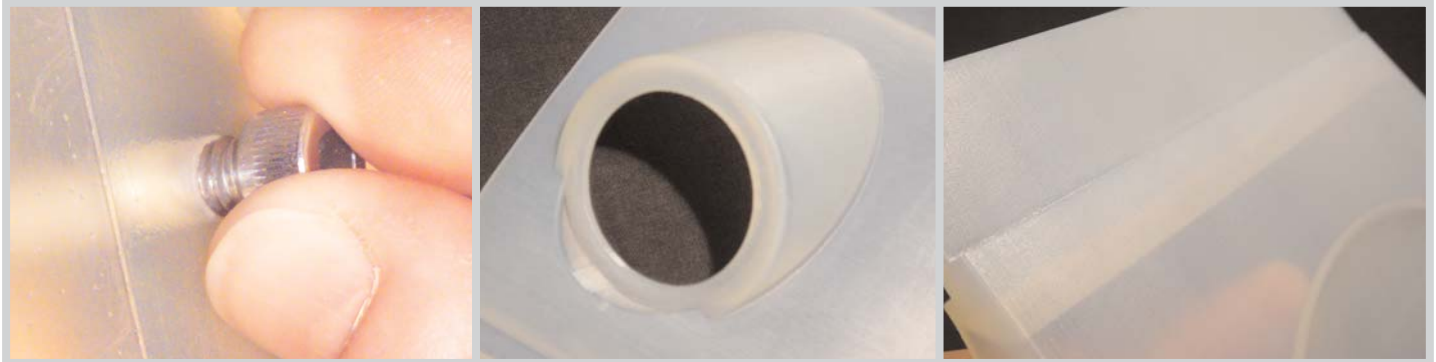




# Accura<sup>®</sup> 40 plastic

for use with solid-state stereolithography (SLA<sup>®</sup>) systems

**Simulates the properties of nylon 6:6 in a high-temperature, durable material ideal for functional prototypes and master patterns.**



*Left:* Accura 40 plastic has many post-processing capabilities, including tapping and threading.

## APPLICATIONS

- High temperature testing:
  - Automotive "under-the-hood" parts
  - Intake manifolds
  - Lighting components and accessories
  - HVAC components
- Parts where additional assembly or machining operations may be required (self-tapping screws, drilling, etc.)
- Thin-wall enclosures
- Master patterns for RTV/silicone molding
- Wind-tunnel models
- Snap-fit assemblies

## FEATURES

- Stiffness matches nylon 6:6
- High heat resistance without brittleness
- Good durability
- Outstanding accuracy with minimal distortion
- Fully developed and tested build styles

## BENEFITS

- Produces parts similar to nylon 6:6 without machining or tooling
- Resists temperatures over 100 °C
- Withstands forces necessary for functional testing
  - assembly
  - bolting
  - vibration
  - secondary machining
- Reproduces CAD data faithfully
- Maximizes reliability with no user R&D

# Accura<sup>®</sup> 40 plastic

For use with all solid-state stereolithography (SLA<sup>®</sup>) systems

## TECHNICAL DATA

### Liquid Material

MEASUREMENT	METHOD/CONDITION	METRIC	U.S.
Appearance		Clear amber	
Liquid Density	@ 25 °C (77 °F)	1.16 g/cm <sup>3</sup>	
Solid Density	@ 25 °C (77 °F)	1.19 g/cm <sup>3</sup>	
Viscosity	@ 30 °C (86 °F)	485 cps	
Penetration Depth (Dp)	Viper SLA 5000 SLA 3500/7000	6.6 mils 6.6 mils 6.8 mils	
Critical Exposure (Ec)	Viper SLA 5000 SLA 3500/7000	21.7 mJ/cm <sup>2</sup> 20.2 mJ/cm <sup>2</sup> 20.1 mJ/cm <sup>2</sup>	
Tested Build Styles		EXACT™, Exact HR, FAST™, ThinLayer™	

### Post-Cured Material

MEASUREMENT	METHOD/CONDITION	METRIC	U.S.
Tensile Strength	ASTM D 638	57 - 61 MPa	8,270 - 8,920 PSI
Tensile Modulus	ASTM D 638	2,628 - 3,321 MPa	380 - 480 KSI
Elongation at Break (%)	ASTM D 638	4.8 - 5.1 %	
Flexural Strength	ASTM D 790	92.8 - 97 MPa	13,400 - 14,000 PSI
Flexural Modulus	ASTM D 790	2,618 - 3,044 MPa	380 - 440 KSI
Impact Strength (Notched Izod)	ASTM D 256	22.3 - 29.9 J/m	0.42 - 0.56 ft-lb/in
Heat Deflection Temperature	ASTM D 648 @ 66 PSI @ 264 PSI @ 66 PSI with 160 °C Thermal Postcure	51 - 54 °C 43 - 49 °C 101 - 114 °C	124 - 129 °F 109 - 120 °F 214 - 237 °F
Hardness, Shore D	ASTM D 2240	84	
Co-efficient of Thermal Expansion	ASTM E 831-93 TMA (T<Tg, 0 - 20 °C) TMA (T>Tg, 90 - 150 °C)	87 x 10 <sup>-6</sup> m/m °C 187 x 10 <sup>-6</sup> m/m °C	
Glass Transition (Tg)	DMA, E'	62 - 65.6 °C	144 - 150.1 °F



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