

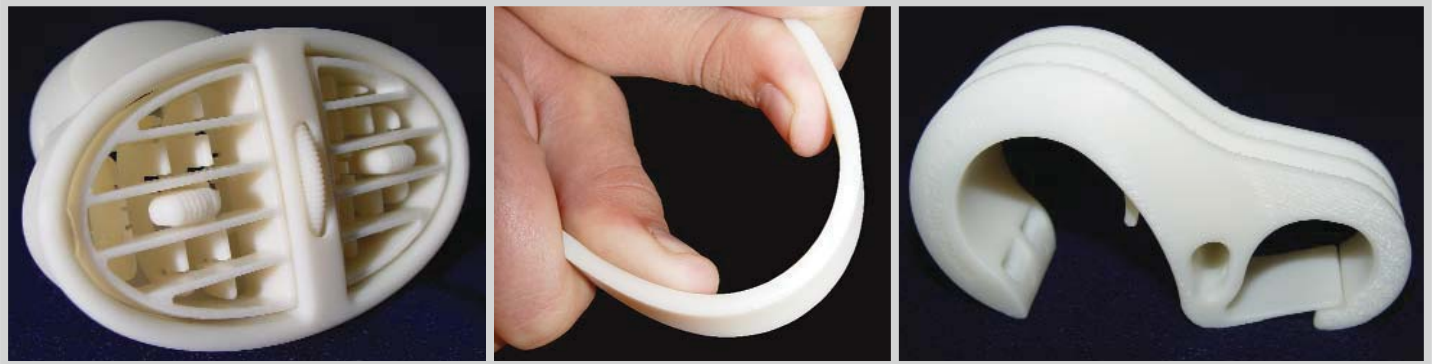
Services Provided By

PROTO3000
3D Engineering Solutions

Accura[®] 25 plastic

for use with solid-state stereolithography (SLA[®]) systems

Simulate the properties and aesthetics of polypropylene with this accurate and flexible material.



APPLICATIONS

- Functional components for assemblies and mock-ups for:
 - Automotive styling parts — trim, fascia, and other components
 - Consumer electronic components
 - Toys
 - Snap fit assemblies
- Master patterns for RTV/silicone molding
- Replace CNC machining of polypropylene to produce short-run plastic parts
- Simulate injection molded parts
- Concept and marketing models

FEATURES

- Look and feel of molded polypropylene
- High flexibility with excellent shape retention
- Outstanding feature resolution and accuracy
- High production speed
- Fully developed and tested build styles

BENEFITS

- Increased market opportunities for models
- Reliable and robust functional prototypes
- Suitable for master patterns
- More parts and better system utilization
- Maximize reliability with no user R&D

Accura[®] 25 plastic

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

"After providing some models in Accura 25 to a couple of our regular customers, they have decided to make it their default SL material for all future orders. To date they have already ordered hundreds of parts. They get a material that looks like a final article molded part having a great balance of durability and flexibility. I get a material that is very easy to clean and finish, but most importantly is extremely reliable in the machine. This has been a real win-win for us.."

-- Steve Grundahl — Owner, Midwest Prototyping LLC

TECHNICAL DATA

Liquid Material

MEASUREMENT	METHOD/CONDITION	VALUE
Appearance		White
Liquid Density	@ 25 °C (77 °F)	1.13 g/cm ³
Solid Density	@ 25 °C (77 °F)	1.19 g/cm ³
Viscosity	@ 30 °C (86 °F)	250 cps
Penetration Depth (Dp) *		4.2 mils
Critical Exposure (Ec) *		10.5 mJ/cm ²
Tested Build Styles		FAST™, EXACT™, Exact HR

Post-Cured Material

MEASUREMENT	METHOD/CONDITION	METRIC	U.S.
Tensile Strength	ASTM D 638	38 MPa	5,450 - 5,570 PSI
Tensile Modulus	ASTM D 638	1,590 - 1,660 MPa	230 - 240 KSI
Elongation at Break (%)	ASTM D 638	13 - 20 %	
Flexural Strength	ASTM D 790	55 - 58 MPa	7,960 - 8,410 PSI
Flexural Modulus	ASTM D 790	1,380 - 1,660 MPa	200 - 240 KSI
Impact Strength (Notched Izod)	ASTM D 256	19-24 J/m	0.4 ft- lb/in
Heat Deflection Temperature	ASTM D 648		
	@ 66 PSI	58 - 63 °C	136 - 145 °F
	@ 264 PSI	51 - 55 °C	124 - 131 °F
Hardness, Shore D		80	
Co-efficient of Thermal Expansion	ASTM E 831-93		
	TMA (T<T _g , 0 - 20 °C)	107 x 10 ⁻⁶ m/m °C	
	TMA (T>T _g , 90 - 150 °C)	151 x 10 ⁻⁶ m/m °C	
Glass Transition (T _g)	DMA, E''	60 °C	140 °F

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

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