STEREOLITHOGRAPHY

Accura® 55 Plastic

Cordless drill prototype for future assembly testing.

Simulate the look and feel of molded ABS with this tough and versatile plastic.

Applications

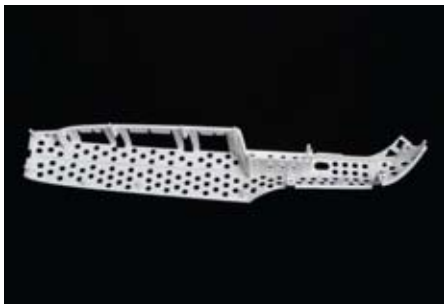
- Automotive interior components
- Short-run production parts
- Electronic components
- Testing of functional assemblies
- Rigid and durable functional proto types
- Concept and marketing models
- Accurate, durable master patterns for urethane casting

Features

- Durable and rigid material
- Look and feel of molded ABS
- High accuracy with less distortion
- High production speed
- Low viscosity formulation
- Fully developed and tested build styles

Benefits

- Produce ABS-like parts without molding or machining
- Increase market opportunities and acceptance for models
- Parts produced within tolerance and faithful to CAD data
- Increase system throughput
- Minimize part cleaning and finish ing labor
- Maximize reliability with no user R&D



Automotive door component.

Spa water jet prototypes.

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Accura® 55 Plastic

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

"Accura® 55 has proven to be an excellent resin for Harvest. Its low viscosity allows us to clean and finish parts more easily. Couple that with a high build success rate and the result is greater production efficiency and higher quality parts. Additionally, the mechanical properties allow the models to serve as functional prototypes that better meet the needs of our customers."

Jason Morgan,
Stereolithography
Production Manager
Harvest Technologies

Look and feel of molded ABS.

Durable and rigid testing.

Technical Data

Liquid Material

Measurement	Condition	Value
Appearance		White
Liquid Density	@ 25 °C (77 °F)	1.13 g/cm^3
Solid Density	@ 25 °C (77 °F)	1.20 g/cm^3
Viscosity	@ 30 °C (86 °F)	155 - 185 cps
Penetration Depth (Dp)*		5.2 mils
Critical Exposure(Ec)*		7.4 mJ/cm^2
Tested Build Styles		EXACT™, FAST™, EXACT™ HR

Post-Cured Material

Measurement	Condition	Metric	U.S.
Tensile Strength	ASTM D 638	63 - 68 MPa	9,200 - 9,850 PSI
Tensile Modulus	ASTM D 638	3,200 - 3,380 MPa	460 - 490 KSI
Elongation at Break (%)	ASTM D 638	5 - 8 %	5 - 8 %
Flexural Strength	ASTM D 790	88 - 110 MPa	12,830 -15,920 PSI
Flexural Modulus	ASTM D 790	2,690 - 3,240 MPa	390 - 470 KSI
Impact Strength (Notched Izod)	ASTM D 256	12 - 22 J/m	0.2 - 0.4 ft-lb/in
Impact Strength (Notched Izod)	ASTM D 5420	1.1 J	0.81 ft - lbs
Heat Deflection Temperature	ASTM D 648 @ 66 PSI @ 264 PSI	 55 - 58 °C 51 - 53 °C	 131 - 136 °F 123 - 127 °F
Hardness, Shore D		85	85
Co-Effcient of Thermal Expansion	ASTM E 831-93 TMA (T<Tg, 0-40 °C) TMA (T<Tg, 75-140 °C)	 61 x µm/m -°C 163 µm/m -°C	 141 µin/in - °F 326 µin/in - °F
Glass Transition (Tg)	DMA, E"	56 °C	132°F

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

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