

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

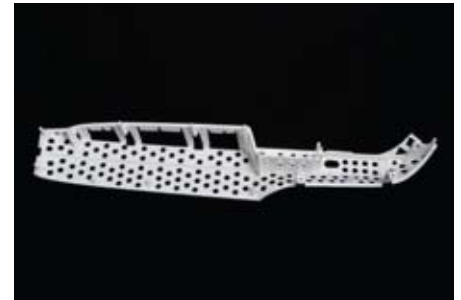
- Automotive interior components
- Short-run production parts
- Electronic components
- Testing of functional assemblies
- Rigid and durable functional proto types
- Concept and marketing models
- Accurate, durable master patterns for urethane casting

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 finishing labor
- Maximize reliability with no user R&D



Automotive door component.



Spa water jet prototypes.



Accura[®] 55 Plastic

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

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-Efficient 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



Look and feel of molded ABS.



Durable and rigid testing.

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



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