

# Accura® Xtreme Plastic



PROTOFACTURING



*Functional prototype helmet used for durability testing*

Get extreme performance and durability with Accura® Xtreme Plastic.

## Applications

- Form, fit and function prototypes
- Durable Assemblies
  - Snap fit assemblies
  - Tough enclosures
  - Consumer electronic components
- Master patterns for RTV/Silicone molding
- Replace CNC machining of Polypropylene and ABS

## Features

- Look and feel of a durable molded plastic
- Outstanding durability and impact resistance
- Thermal Resistance over 60° C
- Easy to use low viscosity formulation
- Fully developed and tested build styles



## Benefits

- Increased application opportunities
- Suitable for assemblies and functional testing
- Prototypes withstand modest temperatures without distortion
- Faster recoating and build times
- Maximize reliability with no user R&D



# Accura<sup>®</sup> Xtreme Plastic

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

*"Since we introduced Accura Xtreme stereolithography material to our clients they have told us they are able to use this material in more applications than any other material we have supplied in the past. The material has physical properties that are close enough to a durable end use plastics like ABS and Polypropylene, that our customers are not only using it for functioning prototypes, but also for short run production projects. Accura Xtreme is a grey plastic with the appearance of a final production part. Durability, accuracy and aesthetics have made Accura Xtreme our go-to material. In order to keep up with demand, we have it installed in several systems including one of our Viper Pros!"*

**Scott Turner- President**  
**Scicon Technologies**



## Technical Data

### Liquid Material

Measurement	Condition	Value
Appearance		Grey
Liquid Density	@ 25 °C (77 °F)	1.13 g/cm <sup>3</sup>
Solid Density	@ 25 °C (77 °F)	1.19 g/cm <sup>3</sup>
Viscosity	@ 30 °C (86 °F)	250 - 300 cps
Penetration Depth (Dp) *		4.1 mils
Critical Exposure (Ec) *		11.7 mJ/cm <sup>2</sup>
Tested Build Styles		EXACT™

### Post-Cured Material

Measurement	Condition	Metric	U.S.
Tensile Strength	ASTM D 638	38 - 44 MPa	5510 - 6380 PSI
Tensile Modulus	ASTM D 638	1790 - 1980 MPa	260 - 287 KSI
Elongation at Break (%)	ASTM D 638	14 - 22 %	14 - 22 %
Flexural Strength	ASTM D 790	52-71 MPa	7540 - 10300 PSI
Flexural Modulus	ASTM D 790	1520 - 2070 MPa	220 - 300 KSI
Impact Strength (Notched Izod)	ASTM D 256	35 - 52 J/m	0.66 - 0.98 ft-lb/in
Heat Deflection Temperature	ASTM D 648		
	@ 66 PSI	62 °C	144 °F
	@ 264 PSI	54 °C	129 °F
Hardness, Shore D		86	86
Glass Transition (Tg)	DMA, E"	52 °C	126 °F

\* Dp/Ec values are the same on all solid-state laser SLA<sup>®</sup> systems.



**PROTOFACTURING**

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