



# Accura® ABS Black (SL 7820)

## ABS Class

Stereolithography (SLA)

Strong and aesthetic black parts with minimal finishing to replace CNC-machined or molded ABS articles.

### ABS-LIKE PERFORMANCE AND APPEARANCE

Accura ABS Black (SL 7820) is a rigid and tough material designed to build accurate, robust and durable parts in black color without painting. It simulates and replaces CNC-machined and injection molded black ABS articles for concept models, functional prototypes, assemblies and short-run production parts.

With good surface finish and detail, Accura ABS Black produces strong black parts at high throughput in an ABS-like appearance.

### Liquid Material

MEASUREMENT	CONDITION	VALUE
Viscosity	@ 30 °C (86 °F)	210 cps
Penetration Depth (Dp)		4.5 mils
Critical Exposure (Ec)		10 mJ/cm <sup>2</sup>
Color		Black
Liquid Density	@ 25 °C (77 °F)	1.13 g/cm <sup>3</sup>   0.04 lbs/in <sup>3</sup>

#### Printer Compatibility/Packaging:

ProJet® 6000/7000 SLA printers:	2L cartridge
ProX® 800/950, iPro™ 8000/9000 SLA printers:	10 kg cartridge
Viper si2™, SLA 5000 and SLA 7000 printers:	10 kg standard bottle

### APPLICATIONS

- Black ABS-like models and prototypes
  - Automotive components
  - Electronic housings
  - Consumer goods and toys
  - Packaging
  - Functional assemblies
- General purpose prototyping
- Master patterns for RTV/silicone molding
- Short-run production of end-use parts that would typically be injection molded with ABS

### BENEFITS

- Robust ABS-like parts
- Smooth surface finish
- Beautiful black parts without painting
- Ease-of-use and fast processing with minimal finishing

### FEATURES

- High strength and good dimensional stability
- Rigid and tough
- Good humidity/moisture resistance
- Low viscosity formulation
- High accuracy and detail definition





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## Post-Cured Material

MECHANICAL PROPERTIES		LARGE FRAME SLA PRINTERS		PROJET SLA PRINTERS <sup>1</sup>	
MEASUREMENT	CONDITION	METRIC	U.S.	METRIC	U.S.
Tensile Strength (MPa   PSI)	ASTM D 638	45-47	6530-6820	45	6530
Tensile Modulus (MPa   KSI)	ASTM D 638	1890-2440	274-354	2150	312
Elongation at Break	ASTM D 638	6-13 %		5 %	
Flexural Strength (MPa   PSI)	ASTM D 790	75-78	10880-11310	76	11020
Flexural Modulus (MPa   KSI)	ASTM D 790	2260-2370	328-344	2350	341
Impact Strength (J/m   Ft-lbs/in)	ASTM D 256	39-56	0.7-1.1	47	0.9
Heat Deflection Temperature @ 0.45 MPa (66 PSI) @ 1.82 MPa (264 PSI)	ASTM D 648	51 °C NA	124 °F NA	54 °C 51 °C	129 °F 124 °F
Coefficient of Thermal Expansion (CTE) (µm/m-°C   µin/in-°F)	ASTM E 831-93 25-50 °C	93	52	NA	NA
Glass Transition (Tg)	DMA, E''	62 °C	144 °F	62 °C	144 °F
Hardness, Shore D		86		86	
Solid Density (g/cm <sup>3</sup>   lbs/in <sup>3</sup> )	@ 25 °C (77 °F)	1.16	0.042	1.15	0.042

<sup>1</sup> Accura ABS Black was also previously marketed under the Visijet<sup>®</sup> SL Black name for the ProJet 6000 and 7000 printers



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