

# Accura<sup>®</sup> ClearVue<sup>™</sup>

Easy-to-process plastic with best-in-class clarity, high durability and water resistance for a multitude of applications.

# Clear Class Stereolithography (SLA)

## REDEFINING TRANSPARENCY FOR SLA

Utilized in a variety of demanding applications, 3D Systems Accura ClearVue for SLA is the most clear and colorless 3D printing material on the market. Formulated for ease-of-processing, exceptional detail and smooth surface finish, strength, durability and moisture resistance, it simulates the properties and appearance of Polycarbonate and ABS.

This unique combination of clarity, material properties and processing speed makes Accura ClearVue a high performing and cost-effective choice for aesthetic and functional prototypes used to improve product development efficiency of consumer goods, automotive, aerospace and medical components.

#### Liquid Material

MEASUREMENT	CONDITION	VALUE
Viscosity	@ 30 °C (86 °F)	235-260 cps
Penetration Depth (Dp)		6.1 mils
Critical Exposure (Ec)		9.5 mJ/cm <sup>2</sup>
Color		Clear / Transparent
Liquid Density	@ 25 °C (77 °F)	1.10 g/cm <sup>3</sup>   0.04 lbs/in <sup>3</sup>

### **APPLICATIONS**

- Models and prototypes requiring high clarity
  - Lighting and lenses
  - Fluid flow visualization models
  - Transparent assemblies
  - Packaging/bottles
- General purpose prototyping
- Medical models and devices (UPS Class VI capable)
- Master patterns for RTV molding
- Prototypes of conformal cooling molds
- Snap fits and complex assemblies

## BENEFITS

- Best see-thru results
- Part stability and water tightness
- Applications versatility
- Beautiful transparent parts
- Ease-of-use and fast processing

### **FEATURES**

- Highest clarity and transparency
- Excellent humidity/moisture resistance
- Durable and strong
- High accuracy with exceptional detail
- and smooth surface finish USP class VI capable







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### **Post-Cured Material**

MECHANICAL PROPERTIES				
MEASUREMENT	CONDITION	METRIC	U.S.	
Tensile Strength (MPa   PSI)	ASTM D 638	46-53	6700-7700	
Tensile Modulus (MPa   KSI)	ASTM D 638	2270-2640	329-383	
Elongation at Break	ASTM D 638	3-15 %		
Flexural Strength (MPa   PSI)	ASTM D 790	72-84	10400-12200	
Flexural Modulus (MPa   KSI)	ASTM D 790	1980-2310	287-335	
Impact Strength (J/m   Ft-lbs/in)	ASTM D 256	40-58	0.70-1.10	
Heat Deflection Temperature @ 0.45 MPa (66 PSI) @ 1.82 MPa (264 PSI)	ASTM D 648	51 °C 50 °C	124 °F 122 °F	
Coefficient of Thermal Expansion (CTE) (µm/m-°C   µin/in-°F)	ASTM E 831-93 25-50° C 50-100° C	122 155	68 86	
Glass Transition (Tg)	DMA, E"	62 °C	144 °F	
Hardness, Shore D		80		
Water Absorption	ASTM D 570-98	0.3%		
Solid Density (g/cm³   lbs/in³)	@ 25 °C (77 °F)	1.17	0.042	

OPTICAL PROPERTIES				
MEASUREMENT	CONDITION	VALUE		
Haze @ 0.495 mm (0.195 in)	ASTM D1003-13	4.3 %		
Luminous Transmittance @ 0.495 mm (0.195 in)	ASTM D1003-13	87.2 %		
Diffuse Transmittance @ 0.495 mm (0.195 in)	ASTM D1003-13	3.8 %		
Index of Refraction	ASTM D542-14	1.508		
L*		95.45		
a*		-0.54		
b*		1.36		

Ordering information:

Part # 24046-902: 10 kg standard bottle for Viper si2™, SLA 5000 and SLA 7000 printers

Part # 24046-920: 10 kg cartridge for  $ProX^{\circledast}$  800, iPro™ 8000, ProX 950 SLA printers



**3D SYSTEMS** 

www.3dsystems.com

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