Accura® ClearVue™

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)	250 cps
Penetration Depth (Dp)		6.1 mils
Critical Exposure (Ec)		9.5 mJ/cm^2
Color		Clear / Transparent
Liquid Density	@ 25 °C (77 °F)	1.10 g/cm3 | 0.04 lbs/in^3

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 (USP Class VI capable)
- Master patterns for RTV molding
- QuickCast™ patterns for investment casting
- Prototypes of conformal cooling molds
- Snap fits and complex assemblies

BENEFITS

- Best-in-class optical clarity
- Part stability and water tightness
- Applications versatility
- Beautiful transparent parts
- Ease-of-use and fast processing

FEATURES

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

3D SYSTEMS®

Accura® ClearVue™

Clear Class

Stereolithography (SLA)

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

Post-Cured Material

MECHANICAL PROPERTIES		LARGE FRAME SLA PRINTERS		PROJET SLA PRINTERS[1]	
MEASUREMENT	CONDITION	METRIC	U.S.	METRIC	U.S.
Tensile Strength (MPa | PSI)	ASTM D 638	46-53	6700-7700	52	7540
Tensile Modulus (MPa | KSI)	ASTM D 638	2270-2640	329-383	2560	371
Elongation at Break	ASTM D 638	3-15 %		6 %	
Flexural Strength (MPa | PSI)	ASTM D 790	72-84	10400-12200	83	12040
Flexural Modulus (MPa | KSI)	ASTM D 790	1980-2310	287-335	2330	338
Impact Strength (J/m | Ft-lbs/in)	ASTM D 256	40-58	0.7-1.1	46	0.9
Heat Deflection Temperature @ 0.45 MPa (66 PSI) @ 1.82 MPa (264 PSI)	ASTM D 648	 51 °C 50 °C	 124 °F 122 °F	 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	 NA NA	 NA NA
Glass Transition (Tg)	DMA, E"	62 °C	144 °F	70 °C	158 °F
Hardness, Shore D		80		85	
Water Absorption	ASTM D 570-98	0.3 %		0.3 %	
Solid Density (g/cm³ | lbs/in³)	@ 25 °C (77 °F)	1.17	0.042	1.17	0.042

[1] Accura ClearVue was also previously marketed under the VisiJet® SL Clear name for the ProJet 6000 and 7000 printers

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

3D SYSTEMS®

www.3dsystems.com

Warranty/Disclaimer: The performance characteristics of these products may vary according to product application, operating conditions, or with end use. 3D Systems makes no warranties of any type, express or implied, including, but not limited to, the warranties of merchantability or fitness for a particular use.

© 2020 by 3D Systems, Inc. All rights reserved. Specifications subject to change without notice. 3D Systems, the 3D Systems logo, ProX and Accura are registered trademarks of 3D Systems, Inc.