STEREOLITHOGRAPHY

Accura ClearVue

Versatile Transparent Material with Glass-Like Clarity

Accura ClearVue is a versatile and transparent material known for its high clarity and glass-like appearance. Favored for its aesthetic qualities, especially in applications requiring visual transparency, this material excels at simulating acrylic or glass for prototyping and design applications.

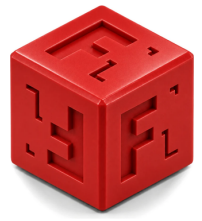


SURFACE FINISHES



Standard Finish Natural

Parts are washed, post-cured and have their supports removed, leaving the smooth, finely detailed surface SLA is known for. Sharp edges, small text and fine features hold their shape, and the surface is ready for fit checks, assembly, presentation or paint.



Performance Paint Premium Finish

A highly durable, automotive-grade coating, hand-finished for smooth surfaces and applied with professional-grade equipment for exceptional adhesion. It comes in matte to semi-gloss, with custom colour matching for parts that need specific branding or visual impact.

BUILD VOLUME	LEAD TIME	LAYER HEIGHT	TOLERANCE
650 × 750 × 550 mm	2-4 business days	0.05-0.1 mm	±0.25% (min ±0.25 mm)

MECHANICAL PROPERTIES

Accura ClearVue has the strength and stiffness for design-validation prototypes, transparent assemblies and medical visualization models that go through fit checks, snap fits and assembly testing.

Values are given as ranges. ClearVue is rigid rather than ductile, so design snap fits, thin walls and threads to the low end of the elongation range.

PROPERTY	VALUE	TEST STANDARD
Tensile Strength	**46–53 MPa**	ASTM D638
Tensile Modulus	**2270–2640 MPa**	ASTM D638
Elongation at Break	**3–15 %**	ASTM D638
Flexural Strength	**72–84 MPa**	ASTM D790
Flexural Modulus	**1980–2310 MPa**	ASTM D790
Impact Strength, Notched Izod	**40–58 J/m**	ASTM D256

THERMAL PROPERTIES

Accura ClearVue is built for room-temperature use. Heat deflection sits close to the glass transition temperature, so keep parts away from heat sources, hot fluids and engine bays.

Thermal expansion is reported over two temperature ranges and is higher in the upper one, so allow for it where ClearVue is assembled with metal or other plastics.

PROPERTY	VALUE	TEST STANDARD
HDT @ 0.45 MPa	**51 °C**	ASTM D648
HDT @ 1.82 MPa	**50 °C**	ASTM D648
Glass Transition Temperature	**62 °C**	DMA, E″
Coefficient of Thermal Expansion (25–50 °C)	**122 ×10⁻⁶/K**	ASTM E831-93
Coefficient of Thermal Expansion (50–100 °C)	**155 ×10⁻⁶/K**	ASTM E831-93

PHYSICAL PROPERTIES

The optical values show how much visible light passes through the material and how much is scattered: luminous transmittance is the share transmitted, haze the share scattered, and the CIE colour values describe a bright, near-colourless material. A printed part's clarity also depends on its surface finish.

Low water absorption keeps parts dimensionally stable and watertight in varying environmental conditions.

PROPERTY	VALUE	TEST STANDARD
Luminous Transmittance	**87.2 %**	ASTM D1003-13
Haze	**4.3 %**	ASTM D1003-13
Diffuse Transmittance	**3.8 %**	ASTM D1003-13
Index of Refraction	**1.508**	ASTM D542-14
Colour (CIE L* / a* / b*)	**95.45 / −0.54 / 1.36**	—
Solid Density (25 °C)	**1.17 g/cm³**	—
Water Absorption	**0.3 %**	ASTM D570-98
Shore Hardness D	**80**	—
Appearance	**Clear / Transparent**	—

BIOCOMPATIBILITY AND COMPLIANCE

Accura ClearVue is capable of meeting USP Class VI when it is cleaned to 3D Systems' USP Class VI procedure, the method 3D Systems used to make its own test parts. Forge Labs offers it as USP Class VI ClearVue, with the cleaning, drying and post-cure steps built into the order, so teams can start regulatory reviews from supplier data.

3D Systems' ClearVue datasheet and product page give USP Class VI as its biocompatibility rating, and no ISO 10993, sterilization, food-contact or flammability rating. Confirm the regulatory pathway with your quality team and document any secondary finishing or coatings.

STANDARD	STATUS
USP Class VI Capable of meeting USP Class VI when cleaned to 3D Systems' USP Class VI procedure (CIB00262); ordered as USP Class VI ClearVue	3D Systems tested

SUPPORTING DOCUMENTS

Biocompatibility certificate