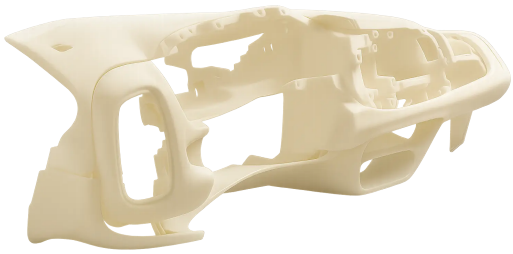
STEREOLITHOGRAPHY

Accura 25

Industrial-Grade SLA Resin with Polypropylene-Like Properties



Accura 25 is a high-performance stereolithography resin engineered for exceptional detail, superior surface finish, and outstanding accuracy. With mechanical properties comparable to polypropylene, it offers a balance of strength, flexibility, and impact resistance, making it ideal for functional prototypes, snap-fit assemblies, and master patterns.

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.



Deep Color Dye Dyed Finish

Select SLA resins, including Accura 25, can be dyed black after post-curing. The dye penetrates the surface for an even, deep colour that won't chip like paint, while keeping the smooth surface and fine detail of the standard finish.



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
1500 × 750 × 550 mm	**2-4 business days**	**0.05-0.15 mm**	**±0.25% (min ±0.25 mm); over 10 in ±0.4% (min ±0.5 mm)**

MECHANICAL PROPERTIES

Accura 25 delivers dependable strength with the look and feel of moulded polypropylene, so functional prototypes, snap-fit assemblies and casting patterns stand up to real assembly and handling. Its balanced mechanical profile carries those loads without turning brittle.

Read the tensile and flexural results together: moderate stiffness with useful elongation is what lets clips and snap features flex and return. The notched impact result shows sensitivity to sharp corners, so generous radii at clip roots and bosses help parts survive repeated assembly.

PROPERTY	VALUE	TEST STANDARD
Tensile Strength	**38 MPa**	ASTM D638
Tensile Modulus	**1590–1660 MPa**	ASTM D638
Elongation at Break	**13–20 %**	ASTM D638
Flexural Strength	**55–58 MPa**	ASTM D790
Flexural Modulus	**1380–1660 MPa**	ASTM D790
Izod Impact Strength, Notched	**19–24 J/m**	ASTM D256

THERMAL PROPERTIES

Heat deflection and glass transition values show where Accura 25 begins to soften, so it suits room-temperature fit checks, handling, display and casting patterns rather than heated environments. The lower deflection result under the higher load means a part near motors, heaters or direct sun should be judged on air temperature and load together.

Thermal expansion is given for two temperature ranges. Measure and fit-check large parts at room temperature. For ducts that carry heated air near the deflection temperature, or for thermal testing, choose High Temperature resin.

PROPERTY	VALUE	TEST STANDARD
HDT @ 0.45 MPa	**58–63 °C**	ASTM D648
HDT @ 1.82 MPa	**51–55 °C**	ASTM D648
Glass Transition Temperature	**72–74 °C**	DMA, E″
Coefficient of Thermal Expansion (0–20 °C)	**107 ×10^{-6}/K**	ASTM E831-93 (TMA)
Coefficient of Thermal Expansion (75–140 °C)	**151 ×10^{-6}/K**	ASTM E831-93 (TMA)

PHYSICAL PROPERTIES

Consistent density and surface quality keep critical features in tolerance and downstream finishing predictable. Solid density is the figure for part weight; liquid density and viscosity describe the resin before curing.

The firm Shore D surface takes sanding, painting and handling well, so assemblies fit and finish without secondary rework.

PROPERTY	VALUE	TEST STANDARD
Solid Density (25 °C)	**1.19 g/cm^3**	—
Liquid Density (25 °C)	**1.13 g/cm^3**	—
Viscosity (liquid resin, 30 °C)	**230 cP**	—
Shore Hardness D	**80**	—

MANUFACTURING

Surface finish	**Smooth, injection-moulded quality sidewalls straight from the printer**