SLA · RESIN

Standard resin

Always in stock

Fine detail first

TENSILE STRENGTH	STIFFNESS	SOFTENS FROM	FINEST LAYER
65 MPa	2200 MPa	73 °C	0.025 mm
ultimate, post-cured	flexural modulus	HDT at 0.45 MPa	

WHAT IT IS LIKE

A different process: liquid resin cured by a laser, one layer at a time. Surfaces come out smooth and detail is far sharper than filament can manage, with layer lines all but invisible. The trade-off is that the material is stiff but brittle, and it does not like sunlight.

GOOD FOR

- Miniatures and figurines
- Display models and jewellery masters
- Small, detailed prototypes
- Parts to be primed and painted

THINK TWICE FOR

- × Parts that get dropped or flexed: tough resin
- × Long-term outdoor or sunlit use
- × Large parts: filament is better value
- × Food contact or medical use: ask us first

HOW WE PRINT IT

Process	SLA on Formlabs Form 3
Layer height	From 0.025 mm
Largest single part	145 × 145 × 185 mm
Finish	Washed and fully cured, ready to prime and paint
Lead time	In stock: no wait for material

MECHANICAL PROPERTIES

PROPERTY	TEST STANDARD	VALUE
Ultimate tensile strength	ASTM D638	65 MPa
Tensile modulus	ASTM D638	2800 MPa
Elongation at break	ASTM D638	6 %
Flexural modulus	ASTM D790	2200 MPa
Impact strength, notched Izod	ASTM D256	25 J/m

THERMAL AND PRINT PROPERTIES

PROPERTY	TEST STANDARD	VALUE
Heat deflection temperature, 0.45 MPa	ASTM D648	73 °C
Heat deflection temperature, 1.8 MPa	ASTM D648	58 °C
Minimum layer thickness		0.025 mm

READING THESE FIGURES

Figures are typical values published by the resin manufacturer (Formlabs, Standard Resin V4: the Clear, White, Grey and Black resins share them), for parts that have been post-cured, as ours are. Resin parts are much the same strength in every direction, so there is one column, not two. A real part's strength still depends on its shape and wall thickness, and thin features are fragile, so use these figures to compare materials, not as design allowables. If a part carries a load or runs warm, tell us and we will advise before printing.