

Ultra Tough Resin Blue Datasheet



Overview

Ultra Tough Resin Blue is a UV-sensitive material specifically formulated for SLA 3D printing. It produces parts with a smooth finish and exceptional mechanical strength. Known for its distinctive dark navy hue, it is ideal for applications requiring durability and a polished appearance.

As-printed Part's Tolerance: $\pm 200\mu\text{m}$ or 0.2%

Maximum Printing Size: 600*600*400mm

Properties

Thermal Properties	Metric	Method
Heat Deformation (0.46 MPa)	91°C	ASTM D648M
Heat Deformation (1.82 MPa)	73°C	ASTM D648M
Mechanical Properties	Metric	Method
Tensile Strength	49MPa	ASTM D638M
Tensile Modulus	2206MPa	ASTM D638M
Elongation at Break	17%	ASTM D638M
Flexural Properties	Metric	Method
Flexural Strength	62.7MPa	ASTM D790M
Flexural Modulus	1724MPa	ASTM D790M
Impact Properties	Metric	Method
Notched Impact Strength	35.8 J/m	ASTM D256A
Other Properties	Metric	Method
Water Absorption	0.7%	ASTM D570-98

Pros

Ultra Tough Resin Blue stands out for its superior mechanical properties and exceptional durability. With a high deformation temperature and tensile strength, it is well-suited for applications requiring resilience. Its low water absorption rate makes it ideal for waterproof designs. This resin is perfect for visual prototypes and proof-of-concept models, and it also meets the demands of functional and production testing.

Cons

The dark navy color of Ultra Tough Resin Blue may make layer lines more visible. While this resin is tougher than many others, extended exposure to direct sunlight can cause the printed parts to become brittle over time due to the material's properties.

Applications

Concept Prototypes

Consumer Electronics

Home Supplies

Industrial Display Panels

Jewelries

Experimental Instruments

Interior Decorations

Sculptures and Props

Mobile Power Banks