

Material Information



Ultra Tough Resin Blue

Introduction

Ultra Tough Resin Blue, also known as Somos® Taurus, is a photosensitive resin material. It is designed for SLA 3D Printing technology. Products printed with Ultra Tough Resin Blue have smooth surface and outstanding mechanical properties. This material has a unique dark navy color.

Advantages

One of the best resin materials in terms of mechanical properties and durability. High deformation temperature. High tensile strength. Low water absorption rate makes it suitable for waterproof designs.

Disadvantages

Layer lines maybe noticeable because of its dark navy color.

Tolerance

±200µm or 0.2%

Recommendation

Ultra Tough Resin Blue is ideal for looks-like applications such as looks-like prototypes, proof-of-concept models. It is also one of the resin materials that can match works-like applications requirements for functional testing and production testing. Compared to other resin material, its ability to withstand extreme environment is better.

Material Specifications		
Heat deformation (0.46 MPa)	ASTM D648M	91 °C
Heat deformation (1.82 MPa)	ASTM D648M	73 °C
Tensile strength	ASTM D638M	49 MPa
Tensile modulus	ASTM D638M	2206 MPa
Elongation at Break	ASTM D638M	17%
Flexural strength	ASTM D790M	62.7MPa
Flexural modulus	ASTM D790M	1724 MPa
Notched impact strength	ASTM D256A	35.8J/m
Water absorption	ASTM D570-98	0.7%

Attention

Although it is tougher than other resin materials, products printed with Ultra Tough Resin Blue material will still gradually turn brittle after long-term exposure to direct sunlight because of the nature of resin material. If you want to prevent this, you may need to keep it away from direct sunlight or add 3D Plus services such as Anti-UV painting to block sunlight.

Applications

3DSPRO find people using Ultra Tough Resin Blue to make functional parts and prototypes in the following industries & applications.

Electromechanical equipment:

Industrial display panels, switches, sockets, power tools, electrical instruments, experimental instruments, measuring tools, under the hood automotive parts, low volume connectors for electronics, etc.

Artwork and toys:

Sculptures, props, jewelries, lighting, miniatures, figurines, interior decorations, toys, dolls, etc.

Consumer electronics appliances:

Laptops, tablets, mobile phones, digital cameras, game consoles, MP3, mobile power bank.

Home supplies:

Air conditioner, air purifier, vacuum cleaner, electric fan, ironing machine, water dispenser, juicer, hair dryer, etc.