

Material Information



Tough Resin White

Introduction

Tough Resin White is one of the most popular resin materials for SLA 3D printing. Except for all the benefits SLA 3D printing provides, Tough Resin White also has great hardness and toughness, making it ideal for designs that have specific mechanical property requirements. It is white in color so is suitable for almost all kinds of 3D Plus services such as painting and screen printing.

Advantages

Great hardness and toughness. Can be easily colored or painted.

Disadvantages

Layer lines maybe relatively noticeable compared to other resin materials. A yellowish tint maybe noticeable if the product is solid or thick.

Tolerance

±200µm or 0.2%

Recommendation

Tough Resin White is ideal for regular applications such as looks-like prototypes, proof-of-concept models, and works-like prototypes for certain use cases. It is good for almost all kinds of 3D Plus services.

Material Specifications		
Heat deformation (0.46MPa)	ASTM D648M	76 °C
Tensile strength	ASTM D638M	27.5 MPa
Tensile modulus	ASTM D638M	2260 MPa
Elongation at Break	ASTM D638M	16%
Flexural strength	ASTM D 790	67.5 MPa
Flexural modulus	ASTM D790M	2700 MPa
Notched impact strength	ASTM D256A	64 J/m
Glass-transition temperature	DMA, E"peak	79.5°C
Hardness	ASTM D2240	80.5, Shore D
Density	25°C	1.13g/cm ³

Attention

Products printed with resin material will gradually turn yellow and brittle after long-term exposure to direct sunlight because of the nature of this material. If you want to prevent this, you may need to keep it away from direct sunlight or add 3D Plus services such as painting to block sunlight.

Applications

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

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.

Electromechanical equipment:

Industrial display panels, switches, sockets, power tools, electrical instruments, experimental instruments, measuring tools, etc.

Home supplies:

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