Material Information

Tough Resin Off-White

Introduction

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

Advantages

Great hardness and toughness. It can be easily colored or painted.

Disadvantages

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

Tolerance

±200μm or 0.2%

Recommendation

Tough resin off-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℃
Tensile Strength	ASTM D638M	27.5MPa
Tensile Modulus	ASTM D638M	2260MPa
Elongation at Break	ASTM D638M	16%
Flexural Strength	ASTM D 790	67.5MPa
Flexural Modulus	ASTM D790M	2700MPa
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

Due to the characteristics of resin materials, products printed with resin materials will gradually turn yellow and become brittle after long-term exposure to direct sunlight. If you want to avoid this from happening, you may need to move it out of direct sunlight or add 3D Plus™ services (such as spray painting) to block out the sunlight.

Applications

3DSPRO finds people using tough resin off-white to make functional parts and prototypes in the following industries and applications.

Artwork and toys:
Sculptures, props, jewelry, lighting, miniatures, figurines, interior decorations, toys, dolls, etc.

Consumer electronics appliances:
Laptops, tablets, mobile phones, digital cameras, game consoles, MP3, and mobile power banks.

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.