

## Material Information



### Quality Resin Black

#### Introduction

Quality Resin Black, also known as Somos® Imagine Black, is a photosensitive resin material. It is designed for SLA 3D Printing technology. Products printed with quality resin black have smooth surface finishing and good toughness. This material has a unique black.

#### Advantages

Solid black color. Has high cost-effectiveness. Gives a smooth surface and can be easily colored or painted. Has a low water absorption rate, making it suitable for waterproof designs.

#### Disadvantages

Layer lines may be relatively noticeable. It can be semi-translucent if the wall of the design is thin.

#### Tolerance

±200µm or 0.2%

#### Recommendation

Quality resin black is ideal for regular applications such as looks-like prototypes, proof-of-concept models, art designs and figurines. It gives out a beautiful and smooth surface finish that is ideal for almost all kinds of 3D Plus™ services.

Material Specifications		
Heat Deformation	ASTM D648M	55°C
Hardness	ASTM D2240	81.5 Shore D
Tensile Strength	ASTM D638M	57.5MPa
Tensile Modulus	ASTM D638M	1300MPa
Elongation at Break	ASTM D638M	7.8%
Flexural Modulus	ASTM D790M	1600MPa
Notched Impact Strength	ASTM D256A	49.5 J/m
Flexural Strength	ASTM D790	62.5MPa
Glass-transition Temperature	DMA, E" peak	65°C
Density	25°C	1.187 g/cm <sup>3</sup>

## 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 quality resin black 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.