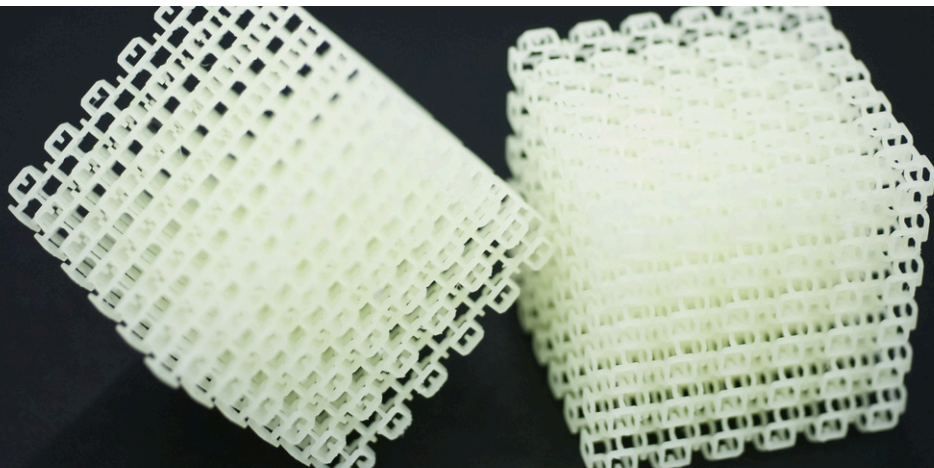


Tough Resin

INDUSTRIAL GRADE MATERIALS FOR SLA 3D PRINTING



MATERIAL NAME

Tough Resin

COLOR

Bright Green

PROCESS

SLA

PRODUCT DESCRIPTION

Tough Resin has a bright green appearance. It has high hardness, high strength, and good toughness, which is suitable for functional testing and processing with high requirements on toughness. Tough Resin also has excellent temperature resistance, can maintain product strength, toughness, and dimensional stability at 65°C. Applicable industries include: aerospace, automotive, consumer goods and electronic products, etc.

TYPICAL APPLICATIONS

- Electronic products
- Consumer goods
- Aerospace
- Automotive

PRODUCT SAFETY

After fully cured, the product is harmless to general skin contact. Very few people may have skin allergies to the resin. It cannot be used for food or medical purposes. If there is uncured resin in the product, you need to use gloves when touching it and avoid contact with the eyes.

PRODUCT DELIVERY & WAREHOUSING

- **STORAGE**

Store in a dry, cool, and dark environment, avoiding direct sunlight, high humidity, and extreme temperatures (ideal: 5°C–25°C).

Protect from prolonged UV exposure and seal properly to prevent environmental degradation.

- **TRANSPORTATION**

Ensure shockproof, pressure-resistant, and moisture-proof packaging to avoid cracking or deformation. Keep separated from strong acids, alkalis, and solvents during transportation.

- **USAGE**

Avoid exposure to strong UV light, high temperatures, or highly corrosive environments.

For outdoor applications, consider applying a UV-resistant coating to reduce aging or discoloration.

- **CHEMICAL COMPATIBILITY**

Preferred exposure: Weak acids, weak alkalis, and low-concentration alcohols (for short-term contact).

Avoid exposure: Strong acids, strong alkalis, oxidizing agents, and strong polar solvents (e.g., acetone, toluene).

PROPERTIES OF PRINTED MATERIAL

Properties	Test Method	Value
Hardness	ASTM D2241	Shore D 82
Flexural modulus (Mpa)	ASTM D790	2355 MPa
Flexural strength (Mpa)	/	/
Tensile modulus (Mpa)	ASTM D638M	2136 MPa
Tensile strength (Mpa)	ASTM D638M	51.21 MPa
Elongation at break	ASTM D638	16%
Poisson's Ratio	/	/
Impact strength notched Izod (J/m)	ASTM D256	27 J/m
Heat deflection temperature (°C)	ASTM D648	HDT @0.45 MPa: 58°C HDT @1.82 MPa: 51°C
Glass transition, Tg (°C)	/	/
Coefficient of thermal expansion (/°C)	/	/
Density (g/cm ³)	/	~1.18 g/cm ³ @25°C

Tips: Want to explore a wider range of materials? Check out <https://www.unionfab.com/materials>



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