

Nylon-like Resin

INDUSTRIAL GRADE MATERIALS FOR SLA 3D PRINTING



MATERIAL NAME

Nylon-like Resin

COLOR

White

PROCESS

SLA

PRODUCT DESCRIPTION

The Nylon-like Resin is a type of resin material with outstanding high-temperature resistance, combining strength and toughness, making it suitable for model making in environments requiring such resistance. This material can be used in temperature conditions ranging from 60°C to 100°C. Additionally, Nylon-like Resin also possesses excellent dimensional stability, rendering it suitable for the production of master molds and components in various fields including automotive, aerospace, lighting, power tools, consumer electronics, and orthodontic medical devices.

TYPICAL APPLICATIONS

- Automotive
- Aerospace
- Lightning
- Consumer electronics

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	ISO868-03	≥80D
Flexural modulus (Mpa)	ISO178	Heat to 100°C: 2940 MPa UV 20mins for both sides: 2200~2250 MPa
Flexural strength (Mpa)	ISO178	Heat to 100°C: 116 MPa UV 20mins for both sides: 60~70 MPa
Tensile modulus (Mpa)	/	/
Tensile strength (Mpa)	ASTM D638M	Heat to 100°C: 75 MPa Heat to 75°C: 76 MPa 45°C, UV 60mins for both sides: 77MPa UV 60mins for both sides: 72MPa UV 20mins for both sides: 65 MPa
Elongation at break	ASTM D638	Heat to 100°C: 9.8% Heat to 75°C: 6.20% 45°C, UV 60mins for both sides: 9.10% UV 60mins for both sides: 8.80% UV 20mins for both sides: 10~15%
Poisson's Ratio	/	/
Impact strength notched Izod (J/m)	ISO180	UV 20mins for both sides: 15-20 J/m
Heat deflection temperature (°C)	ISO75-2	Heat to 100°C: 100°C~105°C Heat to 75°C: 94°C~97°C 45°C, UV 60mins for both sides: 85°C~87°C UV 60mins for both sides: 75°C~77°C UV 20mins for both sides: 58°C~62°C
Glass transition, Tg (°C)	/	/
Coefficient of thermal expansion(/°C)	/	/
Density (g/cm³)	/	~1.15 g/cm³ @25°C

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



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