Nylon 12(White)

INDUSTRIAL GRADE MATERIALS FOR SLS 3D PRINTING

MATERIAL NAME
Nylon 12(White)

COLOR
White

PROCESS
SLS

PRODUCT DESCRIPTION

Balancing strength and detail, SLS Nylon 12 is a highly capable material for both functional prototyping and end-use production of complex assemblies and durable parts with high environmental stability.

TYPICAL APPLICATIONS

- Functional prototypes and end products
- Complex designs with intricate details
- Functional prototyping and testing
- Moving and assembled parts
- Form and fit testing

PRODUCT SAFETY

Most nylon products are biocompatible materials. There is no problem with normal skin contact. Only a small number of people will experience slight skin irritation.

PRODUCT DELIVERY & WAREHOUSING

- **MOISTURE CONTROL**
  Nylon is highly hygroscopic. Store in a dry environment with humidity below 50% to prevent dimensional swelling and performance degradation.
  Use sealed packaging with desiccants or vacuum storage.

- **TEMPERATURE CONTROL**
  Keep storage temperature between 5°C and 35°C. Avoid high temperatures (>60°C) that may cause deformation and low temperatures (<0°C) that may induce brittleness.

- **UV PROTECTION**
  Avoid exposure to UV light to prevent material aging, such as yellowing, brittleness, or loss of mechanical properties.

- **PHYSICAL PROTECTION**
  Prevent heavy stacking or impacts to avoid deformation or cracking.

PROPERTIES OF PRINTED MATERIAL

Properties	Test Method	Value
Hardness	/	/
Flexural modulus (Mpa)	ISO 178:2001	1300 MPa
Flexural strength (Mpa)	ISO 178:2001	46.3 MPa
Tensile modulus (Mpa)	ISO 527.2:1993	1602 MPa
Tensile strength (Mpa)	ISO 527.2:1993	46 MPa
Elongation at break	ISO 527.2:1993	36%
Poisson's Ratio	/	/
Impact strength notched Izod (J/m)	ISO 180:2000	4.9 KJ/m²
Heat deflection temperature (°C)	ISO 75-2:2003	HDT @0.45 MPa: 146.2℃ HDT @1.8 MPa: 83.5℃
Glass transition,Tg (°C)	/	/
Coefficient of themal expension(/°C)	/	/
Density (g/cm³)	/	Apparent density of powders: 0.48 g/cm³ Workpiece density: 0.95 g/cm³

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