MJF Nylon 12 Glass Bead

INDUSTRIAL GRADE MATERIALS FOR MJF 3D PRINTING

MATERIAL NAME
MJF Nylon 12 Glass Bead

COLOR
Black

PROCESS
MJF

PRODUCT DESCRIPTION

MJF Nylon 12 Glass Bead is a high-performance material designed for producing durable and functional parts with exceptional mechanical properties. Comprising 40% glass beads, it offers optimal stiffness, dimensional stability, and repeatability, making it ideal for applications requiring high rigidity, such as housings, enclosures, fixtures, and tools.

TYPICAL APPLICATIONS

- Housings
- Fixtures
- Enclosures
- Tools

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)	/	/
Flexural strength (Mpa)	/	/
Tensile modulus (Mpa)	ASTM D638	XY: 2800 MPa Z: 2900 MPa
Tensile strength (Mpa)	ASTM D638	XY: 30 MPa Z: 30 MPa
Elongation at break	ASTM D638	XY: 6.5% Z: 6.5%
Poisson's Ratio	/	/
Impact strength notched Izod (J/m)	ASTM D256A	(3.2mm，23°C), XYZ: 2.7 KJ/m²
Heat deflection temperature (°C)	ASTM D648A	HDT @0.45 MPa (66psi): 173°C HDT @1.82 MPa (264psi): 121°C
Glass transition,Tg (°C)	/	/
Coefficient of themal expension(/°C)	/	/
Density (g/cm³)	ASTM D1895 ASTM D792	Apparent density of powders: 0.48 g/cm³ Workpiece density: 1.3 g/cm³

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