Nylon 12 GF

LASER SINTERING MATERIAL SPECIFICATIONS

Highlights

- Glass filled Nylon 12 material
- Excellent mechanical stiffness
- Elevated temperature resistance
- Dimensionally stable

Applications

- Housings and enclosures
- Consumer sporting goods
- Complex prototype plastic parts
- Form, fit, or functional prototypes

TYPICAL PHYSICAL PROPERTIES

MECHANICAL PROPERTIES	TEST METHOD	ENGLISH		METRIC	
		XY AXIS	ZX AXIS	XY AXIS	ZX AXIS
Color/Appearance	Visual	White		White	
Density	DIN 53466	0.045 lb/in^3		1.25 g/cm^3	
Elongation at Break	ASTM D638	3%	2%	3%	2%
Flexural Strength	ASTM D790	10,500 psi	8,800 psi	72 MPa	61 MPa
Flexural Modulus	ASTM D790	411,000 psi	325,000 psi	2,834 MPa	2,241 MPa
Heat Deflection Temp @66 psi	ASTM D648	354°F	—	179°C	—
Heat Deflection Temp @264 psi	ASTM D648	273°F	—	134°C	—
Tensile Modulus	ASTM D638	520,000 psi	420,000 psi	3,585 MPa	2,896 MPa
Tensile Strength	ASTM D638	6,400 psi	5,200 psi	44 MPa	36 MPa
Surface Finish	Up-facing surfaces	6.5 µm RA		6.5 µm RA	
Izod Impact Strength (notched)	ASTM D256	0.8 ft-lb/in		40 J/m	
Izod Impact Strength (unnotched)	ASTM D256	2.3 ft-lb/in		120 J/m	
Coefficient of Thermal Expansion: 77°F-212°F (25-100°C)	ASTM E831	61.4		110.5	
Coefficient of Thermal Expansion: 212°F-338°F (100-170°C)	ASTM E831	87.7		157.8	
Volume Resistivity (22ºC, 50%RH, 500V)	ASTM D257-93	—		2.0 x 1014 ohm x cm	

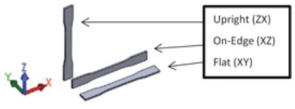
The information presented represents typical values intended for reference and comparison purposes only. It should not be used for design specifications or quality control purposes. End-use material performance can be impacted (+/-) by, but not limited to, part design, end-use conditions, test conditions, color etc. Actual values will vary with build conditions. Product specifications are subject to change without notice.

The performance characteristics of these materials may vary according to application, operating conditions, or end use. Each user is responsible for determining that the material is safe, lawful, and technically suitable for the intended application. Stratasys makes no warranties of any kind, express or implied, including, but not limited to, the warranties of merchantability, fitness for a particular use, or warranty against patent infringement.

XZ = X or "on edge"

XY = Y or "flat"

ZX = or "upright"



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