



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
- Parts requiring stiffness

TYPICAL PHYSICAL PROPERTIES

MECHANICAL PROPERTIES	TEST METHOD	ENGLISH	METRIC
Color/Appearance	Visual	Light Grey	Light Grey
Density	DIN 53466	0.045 lb/in ³	1.25 g/cm ³
Elongation at Break	ASTM D638	1.5 - 3%	1.5 - 3%
Flexural Strength	ASTM D790	8,800 psi	61 MPa
Flexural Modulus	ASTM D790	325,000 psi	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
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
Tensile Modulus	ASTM D638	420,000 psi	2,896 MPa
Tensile Strength	ASTM D638	5,200 psi	36 MPa
Surface Finish	Up-facing surfaces	6.5 µm RA	6.5 µm RA
Coefficient of Thermal Expansion: 77°F-212°F (25-100°C)	ASTM E831	61.4 10-6 µin/in°F	110.5 10-6 µm/m°C
Coefficient of Thermal Expansion: 212°F-338°F (100-170°C)	ASTM E831	87.7 10-6 µin/in°F	157.8 10-6 µm/m°C
Volume Resistivity (22°C, 50%RH, 500V)	ASTM D257-93	—	2.0 x 10 ¹⁴ 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.

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