

Nylon (Glass - Filled)

QUOTE NOW

HIGHLIGHTS

- Excellent mechanical stiffness
- Elevated temperature resistance
- Dimensionally stable

APPLICATION

- Housing and enclosures
- Consumer sporting goods
- Complex prototype plastic parts
- Form, fit, or functional prototypes
- Parts requiring stiffness



TYPICAL PHYSICAL PROPERTIES

PROPERTY	TEST METHOD	ENGLISH	METRIC
Color/Appearance	Visual	Light Grey	Light Grey
Density	DIN 53466	0.050 lb/in ³	1.25 g/cm ³
Elongation at break	ASTM D638	1.4 – 6 %	1.4 – 6 %
Flexural Modulus	ASTM D790	384350 psi	2650 MPa
Heat Deflection Temperature @ 265 psi	ASTM D648	273 °F	134 °C
Heat Deflection Temperature @ 66 psi	ASTM D648	354 °F	179 °C
Izod Impact Strength (method A, notched)	ASTM D256	0.8 ft-lb/in	40 J/m
Izod impact Strength (un-notched)	ASTM D256	2.3 ft-ib/in	120 J/m
Tensile Modulus	ASTM D638	534464 psi	3685 MPa
Tensile Strength	ASTM D638	5221 psi	36 MPa
Coefficient of Thermal Expansion: 77 F – 212 F (25 – 100 C)	ASTM E831	61.4 10 ⁻⁶ uin/in °F	110.5 10 ⁻⁶ um/m °C
Coefficient of Thermal Expansion: 212 F – 338 F (100 – 170 C)	ASTM E831	87.7 10 ⁻⁶ uin/in °F	157.8 10 ⁻⁶ um/m °C

Volume Resistivity (22 C, 50 % RH, 500 V)	ASTM D257 – 93	2.0 *10 ¹⁴ ohm x cm	2.0 *10 ¹⁴ ohm x cm
Surface Finish	Up-facing surface finish	6.5 um RA	6.5 um RA

The material properties provided herein are for reference purposes only. Actual values may vary significantly as they are dramatically affected by part geometry and process parameters. Material specifications are subject to change with out notice.

About Proto3000

Proto3000 connects companies and individuals to the digital tools they need in order to achieve greater capability, scalability, and efficiency. We are a company rooted in providing solutions, and through the development of our product and service portfolio, we are committed to finding the one that is right for you. Having worked with thousands of companies, from various industries, we have gained an understanding of the digital demands required in research and development, product development, and manufacturing. Our suite of solutions have been carefully selected to ensure that you can meet these demands, while positioning your business for sustainable growth and a competitive advantage.

Our business operates in four international market segments; Product Development, Manufacturing, Engineering, and Dentistry. Our solutions include rapid prototyping, 3D printing, engineering design, laser scanning and digital dental products and services.