UNFILLED PA 11 AND PA 12

PA 650

HIGHLIGHTS

- Clean, white surface finish
- Easy to process across most laser sintering platforms
- Excellent detail and feature resolution
- Increased recyclability over other comparable unfilled nylon 12 materials

APPLICATIONS

- Thin walled ducting components
- Consumer products and sporting goods
- Prototypes requiring durability, accuracy and end-use functionality
- Ideal for low to mid-volume rapid prototyping and manufacturing

TYPICAL PHYSICAL PROPERTIES

PROPERTY	TEST METHOD	ENGLISH	METRIC
Color/Appearance	Visual	White	White
Bulk Density	ASTM D1895	0.266 oz/in^3	0.46 g/cm^3
Average Particle Size (D50)	Laser Diffraction	0.002 inches	55 microns
Particle Size Range (D10-D90)	Laser Diffraction	0.001 - 0.004 inches	30 - 100 microns
Sintered Part Density	ASTM D792	0.590 oz/in^3	1.02 g/cm^3
Heat Deflection Temperature	ASTM D648	203° F @ 264 psi	95° C @ 1.82 MPa
Heat Detection Temperature	ASTM D648	356° F @ 66 psi	180° C @ 0.45 MPa
Ultimate Tensile Strength (XY)	ASTM D638	6,962 psi	48 MPa
Tensile Modulus (XY)	ASTM D638	247,000 psi	1,700 MPa
Flexural Modulus (XY)	ASTM D790	217,000 psi	1,500 MPa
Elongation at Break (XY)	ASTM D638	24%	24%
Izod Impact Strength - Notched (XY)	ASTM D256	0.6 ft-lb/in	32 J/m
Izod Impact Strength - Unnotched (XY)	ASTM D256	6.3 ft-lb/in	336 J/m
Dielectric Constant	ASTM D150	2.73 @ 1KHz	2.73 @ 1KHz
Hardness (Shore D)	ASTM D2240	73	73

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 without notice.

alm

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