



# PA 250

## NYLON 12

Unfilled Nylon 12 optimized for excellent mechanical properties, part definition, and surface finish.

### HIGHLIGHTS

- Smooth Surface Finish
- Fine-Feature Resolution
- High Recyclability

### APPLICATIONS

- High-detail production parts
- Prosthetic medical devices
- Ducts, enclosures and connector assemblies



### HEADQUARTERS

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## NYLON 12

Stabilized against thermal degradation, with little or no scrap material and typical virgin refresh rates of 15-25%.

TYPICAL PHYSICAL PROPERTIES			
PROPERTY	TEST METHOD	IMPERIAL	METRIC
Color/Appearance	Visual	White	White
Bulk Density	ASTM D1895	0.289 oz/in <sup>3</sup>	0.5 g/cm <sup>3</sup>
Average Particle Size (D50)	Laser Diffraction	0.002 inches	40 microns
Particle Size Range (D10-D90)	Laser Diffraction	0.001 - 0.002 inches	30 - 50 microns
Sintered Part Density	ASTM D792	0.584 oz/in <sup>3</sup>	1.01 g/cm <sup>3</sup>
Heat Deflection Temperature	ASTM D648	187°F at 264 psi	86°C at 1.82 MPa
Heat Deflection Temperature	ASTM D648	354°F at 66 psi	179°C at 0.45 MPa
Ultimate Tensile Strength (XY)	ASTM D638	6,671 psi	46 MPa
Ultimate Tensile Strength (Z)	ASTM D638	5,221 psi	36 MPa
Tensile Modulus (XY)	ASTM D638	252,366 psi	1,740 MPa
Dielectric Constant @ 1 KHz	ASTM D150	2.73	2.73
Elongation at Break (XY)	ASTM D638	22%	22%
Flexural Modulus ASTM	ASTM D790	217,557 psi	1,500 MPa
Izod Impact Strength (notched)	ASTM D256	0.60 ft-lb/in	32 J/m
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.