

SLS MATERIAL SPECIFICATIONS

Nylon 12 PA

Highlights

- Excellent surface resolution/feature details
- Good chemical resistance
- Low moisture absorption
- Produce durable production parts without tooling

Applications

- Housings and enclosures
- Impellers and connectors
- Snap-fit designs
- Direct Digital Manufacturing
- Complex production or prototype plastic parts
- Complex ductwork

TYPICAL PHYSICAL PROPERTIES

Property	Test Method	English	Metric
Color/Appearance	Visual	White	White
Density	DIN 53466	0.033 - 0.034 lb/in ³	0.90 - 0.97 g/cm ³
Elongation at Break	ASTM D638	15 - 20%	15 - 20%
Flexural Modulus	ASTM D790	179,800 psi	1,240 MPa
Heat Deflection Temperature @ 264 psi	ASTM D648	181°F - 192°F	83°C - 89°C
Heat Deflection Temperature @ 66 psi	ASTM D648	342°F - 360°F	172°C - 182°C
Izod Impact Strength (method A, notched)	ASTM D256	1.24 ft-lb/in	66 J/m
Izod Impact Strength (un-notched)	ASTM D256	3.39 ft-lb/in	181 J/m
Tensile Modulus	ASTM D638	246,500 psi	1,700 MPa
Tensile Strength	ASTM D638	6,815 psi	46 MPa
Surface Finish	Up-facing surface finish	350 microinches	9 µm RA
Volume Resistivity (22°C, 50%RH, 500V)	ASTM D257-93	3.1 x 10 ¹⁴ ohm x cm	3.1 x 10 ¹⁴ ohm x cm

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.