

SELECTIVE LASER SINTERING

PA 12 WHITE

Current Supplier's Material: PA 650



PRODUCT DESCRIPTION

PA 12 White is an economical material choice for functional prototypes and end-use parts. It offers high impact and temperature resistance, is very durable, and remains stable under a range of environmental conditions. The nylon material exhibits a white finish with a slightly rougher surface texture compared to other nylons.

APPLICATIONS

The material's high strength is ideal for jigs and fixtures, housings, and other functional parts. It also has a low coefficient of friction, making it suitable for many types of gears and bearings.



KEY PRODUCT BENEFITS

- Strength and stiffness
- Well-balanced material properties

PROPERTIES

PROPERTY	TEST METHOD	VALUE
Color	-	White
Sintered Density*	ASTM D792	1.02 g/cm ³
Water absorption, 20 °C, 50% Relative Humidity	ASTM D570	0.5 ± 0.2%
Water absorption, 24 hrs. in boiling water		2.0 ± 0.3%
E-Module (x-y plane)	ASTM D638, test speed 10mm/min	2000 ± 200 MPa
E-Module (z plane)		1900 ± 200 MPa
Tensile strength (x-y plane)		50 ± 4 MPa
Tensile strength (z plane)		42 ± 5 MPa
Elongation at break (x-y plane)		11% ± 4%
Elongation at break (z plane)		4% ± 2%
Heat Deflection Temp @ 0.45 MPa*	ASTM D648	177 °C
Heat Deflection Temp @ 1.82 MPa*		86 °C

*From supplier data sheet

TOLERANCES

For well-designed parts, tolerances of ±0.010 in. plus ±0.0015 in./in. for each additional inch can typically be achieved. Note that tolerances may change depending on part geometry.

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