



Nylon 12 HST

LASER SINTERING MATERIAL SPECIFICATIONS

Highlights

- Nylon 12 material with mineral fiber
- Elevated temperature resistance
- High stiffness
- Non-conductive
- RF transparent

Applications

- Structural components
- Enclosures
- Load-bearing applications at elevated temperatures

TYPICAL PHYSICAL PROPERTIES

MECHANICAL PROPERTIES	TEST METHOD	ENGLISH		METRIC	
		XY AXIS		XY AXIS	
Color/Appearance	Visual	Neutral		Neutral	
Specific Gravity	ATSM D792	0.0434 lb/in ³		1.20 g/cm ³	
Elongation at Break	ASTM D638	4.5%	2.7%	4.5%	2.7%
Flexural Strength	ASTM D790	12,000 psi	9,300 psi	85 MPa	65 MPa
Flexural Modulus	ASTM D790	640 ksi	390 ksi	4412 MPa	2688 MPa
Heat Deflection Temp @ 66 psi	ASTM D648	363°F	354°F	194°C	178°C
Heat Deflection Temp @ 264 psi	ASTM D648	355°F	276°F	179°C	135°C
Tensile Modulus	ASTM D638	800 ksi	425 ksi	5,500 MPa	2,900 MPa
Tensile Strength	ASTM D638	7,050 psi	4,500 psi	48 MPa	31 MPa
Izod Impact Strength (Notched)	ASTM D256	0.7 ft-lb in		37.4 J/m	
Coefficient of Thermal Expansion: (0°C-50°C)	ASTM E831	57 µin/in°F		178 µm/m°C	
Coefficient of Thermal Expansion: (85°C-145°C)	ASTM E831	102 µin/in°F		135 µm/m°C	

The information presented represents typical values intended for reference and comparison purposes only. It should not be used for design specifications or quality control purposes. End-use material performance can be impacted (+/-) by, but not limited to, part design, end-use conditions, test conditions, color etc. Actual values will vary with build conditions. Product specifications are subject to change without notice.

The performance characteristics of these materials may vary according to application, operating conditions, or end use. Each user is responsible for determining that the material is safe, lawful, and technically suitable for the intended application. Stratasys makes no warranties of any kind, express or implied, including, but not limited to, the warranties of merchantability, fitness for a particular use, or warranty against patent infringement.

XZ = X or "on edge"

XY = Y or "flat"

ZX = or "upright"

