

Nylon PA 12 White Datasheet



Overview

Nylon PA 12 White is suitable for selective laser sintering, enabling the production of precise and durable parts. It is perfect for creating functional prototypes and end-use components, such as jigs, fixtures, gears, and bearings.

As-printed Part's Tolerance: $\pm 300\mu\text{m}$ or 0.3%

Maximum Printing Size: 360*560*660mm

Properties

Thermal Properties	Metric	Method
Heat Deformation (0.46 MPa)	180.85°C	ASTM D648M
Heat Deformation (1.82 MPa)	115.4°C	ASTM D648M
Mechanical Properties	Metric	Method
Tensile Strength	50MPa	ASTM D638M
Tensile Modulus	2000MPa	ASTM D638M
Elongation at Break	11.5%	ASTM D638M
Flexural Properties	Metric	Method
Flexural Modulus	1900MPa	ASTM D790
Flexural Strength	60MPa	ASTM D790
Impact Properties	Metric	Method
Notched Impact Strength	21 J/m	ASTM D256
Unnotched impact strength	294 J/m	ASTM D256
Density Properties	Metric	Method
Density	0.95 g/cm³	DIN 53466

Pros

PA 12 White printed using SLS 3D technology provides excellent impact resistance, temperature stability, and durability in diverse environmental conditions.

Cons

This material is susceptible to shrinkage and warping, often needing significant post-processing to obtain a smooth finish. Items printed from powdered materials typically have a rough, grainy texture.

Applications

Automotive Components

Structural and High-stress Parts

Gears

Electrical Connectors

Enclosures and Housings

Jigs and Fixtures

Sensor Components

Surgical Tools

Brackets and Gaskets