Nylon PA 11 White Datasheet

Overview

Nylon PA 11 White is a sustainable polyamide material optimized for selective laser sintering (SLS). It's suitable for creating functional components like gears, drone parts, and other technical elements designed to endure high-stress conditions.

As-printed Part's Tolerance: ±300μm or 0.3%

Maximum Printing Size: 645*325*520mm

Properties

Thermal Properties	Metric	Method
Heat Deformation (0.46 MPa)	170.5℃	ASTM D648M
Heat Deformation (1.82 MPa)	85.5℃	ASTM D648M
Mechanical Properties	**Metric**	**Method**
Tensile Strength	45MPa	ASTM D638M
Tensile Modulus	1600MPa	ASTM D638M
Elongation at Break	48%	ASTM D638M
Flexural Properties	**Metric**	**Method**
Flexural Modulus	1500MPa	ASTM D790
Flexural Strength	49MPa	ASTM D790
Impact Properties	**Metric**	**Method**
Notched Impact Strength	7 J/m	ASTM D256
Unnotched impact strength	31 J/m	ASTM D256
Impact Properties	**Metric**	**Method**
Density	0.98 g/cm³	DIN 53466

Pros

Nylon PA 11 White, when 3D printed using SLS technology, delivers a combination of strong mechanical performance, flexibility, and chemical resistance. It's particularly well-suited for demanding applications in the automotive, aerospace, and medical sectors.

Cons

This material is prone to warping and shrinkage during the printing process and often demands thorough post-processing to achieve a smooth finish. Prints made from powder-based materials typically have a rough, grain-like texture.

Applications

Automotive Components Custom Prosthetics and Orthoses Gears

Electrical Connectors Enclosures and Housings Jigs and Fixtures

Sensor Components Surgical Tools Brackets and Gaskets