

Nylon White FS

CERTIFIED BY NSF FOR FOOD CONTACT

Nylon White FS is an unfilled, non-abrasive nylon that is certified by NSF to NSF/ANSI Standard 51, Food Equipment Materials and is compliant with FDA CFR Title 21. It is suitable for production tooling and maintenance, repair, and operations (MRO) applications on food and beverage factory floors where the use of a food-contact certified material is required or preferred. The NSF certification applies to Nylon White FS only. End users are responsible for validating that their printed parts satisfy their companies' food safety standards. Nylon White FS is certified for all NSF food contact categories except alcohol.



Listed 2024/10/11

Features and benefits

- _____ Certified by NSF for food-contact
- _____ Unfilled nylon
- _____ Smooth and non-abrasive
- _____ Easily paintable
- _____ Moisture resistant

Composite Base	Test (ASTM)	Nylon FS (XZ Orientation)**
Tensile Modulus (GPa)	D638	1.8
Tensile Stress at Break (MPa)	D638	47
Tensile Strain at Break (%)	D638	23
Flexural Strength (MPa)	D790 ¹	77
Flexural Modulus (GPa)	D790 ¹	1.6
Flexural Elongation (%)	D790 ¹	No break
Heat Deflection Temp (°C)	D648 B	41
Izod Impact - notched (J/m)	D256-10 A	110
Density (g/cm ³)	—	1.1
Average Wall Roughness, Ra (µm) *	—	8

¹ Measured by a method similar to ASTM D790. Composite Base -only parts do not break before end of flexural test.

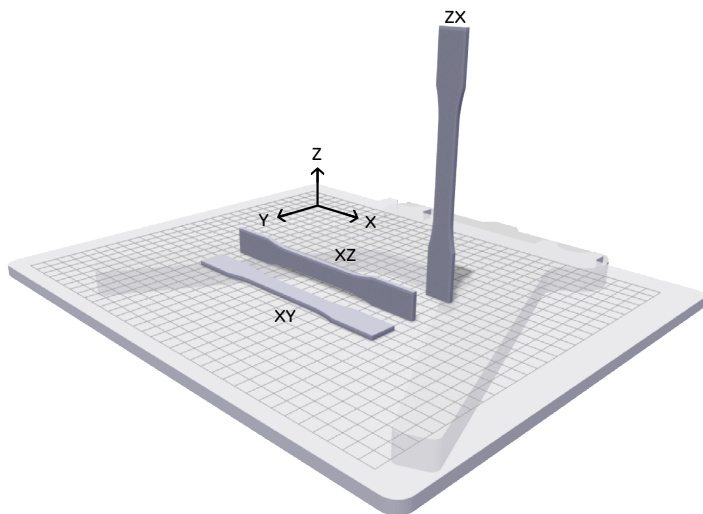
* Tested at 125 µm layer height.

** Data derived from specimens printed on FX10.

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Directional Mechanical Properties of Nylon White FS

The mechanical properties of 3D printed materials may vary with print orientation. In tension, most parts are strongest when the print orientation and loading direction are parallel, and weakest when the print orientation and loading direction are perpendicular.



Property	Print orientation	Average**
Strength at break (MPa)	XY	30
	XZ	47
	ZX	30
Tensile modulus (GPa)	XY	1.3
	XZ	1.8
	ZX	1.6
Elongation at break (%)	XY	50
	XZ	23
	ZX	2.3

** Data derived from specimens printed on FX10.

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