

NYLON 12 · Technical Data Sheet

General Features

Chemical Name Polyamide 12	Benefits <ul style="list-style-type: none"> • Extremely tough with superior tensile strength, elongation at break & impact strength, high fatigue endurance, and low friction coefficient • Very low moisture absorption before and after printing • Superior chemical and UV resistance • High heat resistance 	Main Applications Ideal for tough objects with living hinges (one or two layer walls are flexible), resistant to chemicals and practically unbreakable. Clips, hooks, housings, bearings, pulleys, gears, washers, bushings, jigs and fixtures, flanges.
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Filament Characteristics

Diameter	Ø 1.75mm	Ø 2.85mm
Meters per spool	308.726m	116.402m
Weight per meter	2.43g	6.44g
Tolerance	±0.02mm	±0.03mm

Material Properties

		Dry / Cond	Standard
Density	Gr/cm3	1.01	ISO 1183
Charpy Impact Strength (+23°C)	KJ/m ²	N / N	ISO 179/1eU
Charpy Impact Strength (-30°C)	KJ/m ²	N / N	ISO 179/1eU
Yield Stress	MPa	45/40	ISO 527 -1/-2
Tensile Modulus	MPa	1400/1100	ISO 527 -1/-2
Stress at Break	MPa	55/50	ISO 527 -1/-2
Yield Strain	%	5/12	ISO 527 -1/-2
Charpy Notched Impact Strength (+23°C)	kJ/m2	6/7	ISO 179/1eA
Charpy Notched Impact Strength (-30°C)	kJ/m2	7/6	ISO 179/1eA
Water absorption (10°C/min)	°C	1.5/-	Sim. to ISO 62
Humidity Absorption	%	0.7/-	Sim. to ISO 62
Melting Temperature (10°C/min)	%	178/-	ISO 11357 -1/-3
Temperature of deflection under load (1.80 MPa)	°C	50/-	ISO 75 -1/-2
Temperature of deflection under load (0.45 MPa)	°C	125/-	ISO 75 -1/-2

Recommended printer settings

Print temperature	245±5°C
Print bed temperature	100° First/ Later
Cooling fans	Off
Closed environment	Required
Adhesive	Required

Available Colours

Colour	Pantone Code
Natural	--

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