

Technical Data Sheet Plexiwire Nylon PA6

Description

Plexiwire NYLON is a PA6/66 3D printing filament for FDM/FFF printers, available in 400m, 300m, 200m and 100m.

Material Properties

Specific gravity	1.25 g/cm ³	ISO 1183
Water absorption, 23°C/24h	<0.3%	ISO 62
Melt flow rate (MFR), 250°C / 2,16kg	5,5 g/10 min	ISO 1133
Linear mould shrinkage	0.3-0.5 %	DIN 16742

Mechanical Properties at 23°C / 50% rh

Tensile strength (dry, at 50 mm/min)	78 MPa	ISO 527
Elongation at max. force (dry, at 50 mm/min)	4,40%	ISO 527
Modulus of elasticity (dry, at 1 mm/min)	3.4 GPa	ISO 527
Impact strength (dry, 80x10x4mm)	90 kJ/m ²	ISO 179 1eU

Thermal Properties

Heat distortion temperature (HDT A)	90°C	ISO 75
Continous service temperature (20.000h)	120°C	IEC 60216
Service temperature (max. 200h)	160°C	

Electrical Properties

Insulation resistance (strip electrode R25)	>10 ¹² Ω	DIN IEC 60167
Surface resistance (ROB)	>10 ¹² Ω	DIN IEC 60093

Guideline for print settings*

Nozzle temperature	250-280°C
Bed temperature	100-120°C
Active cooling fan	0 - 10%
Layer height**	≥ 0.15mm
Shell thickness**	0.40 - 2.70 mm
Print speed**	30-70 mm/s
Closed chamber	recommended
Dry box	recommended
Ruby or hardened nozzle	not necessary
Drying (if wet)	necessary***

* ustawienia oparto na dyszy o średnicy 0,4 mm

** w zależności od złożoności geometrycznej

*** minimum 12h w temp. 80 stopni

Filament Specification

Nominal diameter	1,75mm
Diameter tolerance	+ -3%
Ovality	>=97%
Available colors	black, natural
Netto filament weight	400m=1.1kg+-5%, 300m=825g+-5%, 200m=550g+-5%, 100m=275g+-5%