

Technical Data Sheet Plexiwire ABS+

Description

Plexiwire ABS+ is a modified ABS 3D printing filament for FDM/FFF printers, available in 400m, 300m and 100m.

Material Properties

Specific Gravity	1.05 g/cm ³	D 792
Shrinkage (Flow), 3,2mm	0,2-0,4%	D955
Melt Flow Rate (220°C/10kg)	21 g/10min	D1238

Mechanical Properties

Tensile Strength at Yield, 3.2mm (50mm/min)	460 kg/cm ²	D 638
Tensile Elongation at Break, 3.2mm (50mm/min)	18 %	D 638
Flexural Strength, 3.2mm (15mm/min)	740 kg/cm ²	D 790
Flexural Modulus, 3.2mm (15mm/min)	25 000 kg/cm ²	D 790
Rockwell Hardness, R Scale	108	D 785
Izod Impact Strength, Notched, 3,2mm @ 23°C	33 kg cm/cm	D 256
Izod Impact Strength, Notched, 3,2mm @ -30°C	16 kg cm/cm	D 256

Thermal Properties

Heat Deflection Temperature, 6.4mm	85°C	D 648
Vicat Softening Temperature	93°C	D 1525
Flammability (1.5mm & 3.0mm)	HB	UL94
Relative Temperature Index	95°C	UL 746B

Guideline for print settings*

Nozzle temperature	230-255°C
Bed temperature	100°C
Active cooling fan	0 - 25%
Layer height**	0.05 - 0.30 mm
Shell thickness**	0.40 - 2.70 mm
Print speed**	40-100 mm/s
Closed chamber	recommended for larger prints
Dry box	not necessary
Ruby or hardened nozzle	not necessary

* settings are based on a 0,4 mm nozzle

** depending on the geometrical complexity

Filament Specification

Nominal diameter	1,75mm
Diameter tolerance	+ - 3%
Ovality	>= 97%
Netto filament weight	400m = 1kg +-5%, 300m = 0.75kg +-5%, 100m = 0.25kg +-5%