



Polyamide

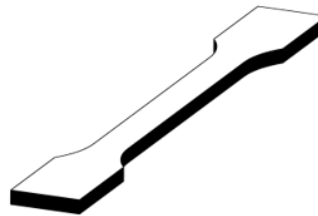
Physical Properties	Value	Standard
Density	1.03 g/cc	ISO 1183

Mechanical Properties

TENSILE TEST - STANDARD ISO 527

Test specimens printed on Ultimaker 2+ with the following setup:

- Nozzle type: Standard Brass 0.4
- Nozzle Temperature: 250 °C
- Heat bed Temp: 85 °C
- Print speed: 35 mm/s
- Infill orientation: 45°
- Cooling fan: OFF



xy

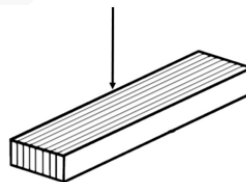
INFILL	15%	50%	100%
Tensile Strength (Mpa)	20.7	27.4	41.1
Elastic Modulus (Mpa)	881.9	1044	1529
Elongation at break (%)	13.94	25.32	31.30
Energy at break (J)	10.48	27.92	49.70

FLEXURAL TEST - STANDARD ISO 178

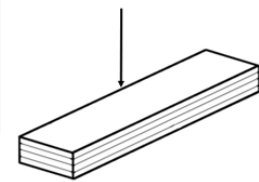
Test specimens printed on Ultimaker 2+ with the following setup:

- Nozzle type: Standard Brass 0.4
- Nozzle Temperature: 250 °C
- Heat bed Temp: 85 °C
- Print speed: 35 mm/s
- Infill orientation: 45°
- Cooling fan: OFF

zy - parallel



xy - normal



INFILL	50%	100%	50%	100%
Flexural Strength (Mpa)	63.5	75.2	53.3	70.12
Flexural Modulus (Mpa)	1255	1518	1140	1371
Deformation (%)	6.44	6.87	6.68	7.05

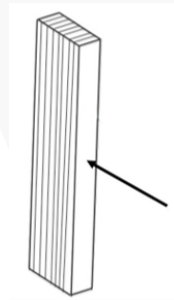


IMPACT TEST IZOD - STANDARD ISO 180

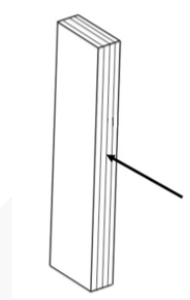
Test specimens printed on Ultimaker 2+ with the following setup:

- Nozzle type: Standard Brass 0.4
- Nozzle Temperature: 250 °C
- Heat bed Temp: 85 °C
- Print speed: 35 mm/s
- Infill orientation: 45°
- Cooling fan: OFF

zy - normal



xy - parallel



INFILL	50%	100%	50%	100%
Impact Strength (KJ/m ²)	60.5	36.1	14.1	27.4
Impact Energy (J)	0.976	1.156	0.45	0.878

Thermal Properties	Value	Standard
Melting Point	178 °C	ISO 11357
Heat Deflection Temp. (0.45MPa)	125 °C	ISO 75
Max Usage Temperature (Long Term)	80-95 °C	ISO 2578
Max Usage Temperature (Short Term)	140 °C	ISO 2578

Other Properties	Value	Standard
Flammability	HB	ISO 1210
Shore Hardness	70-D	ISO 868
Specific Volume Resistivity	10 ¹¹ Ωm	IEC 60093

Filament specifications and print settings

Diameter 1.75mm	1.75 ± 0.05 mm
Diameter 2.85mm	2.85 ± 0.05 mm
Roundness Deviation	max 2%
Suggested Print Temperature	245 – 265 °C
Suggested Print Speed	30 – 40 mm/s
Suggested Bed Temperature	85 °C
Cooling Fan	OFF