

Nylon for 3D Printing

PA0

The first low-temp Nylon

- Ideal for Industrial modelling and prototyping
- Fast cooling
- Low-temp nylon designed to extrude at ~230°C
- Semi-flexible filament produces results similar to an injection moulded part
- Durable and impact resistant with high thermal durability
- Pre-lubricated filament using exclusive lubricity™ technology
- Odour-free

Size Specifications ^[a]		Units	Test Method
Nominal Diameter	1.75 / 2.85	mm	-
Diameter Tolerances	±0.10 / ±0.10	mm	-
Mechanical Properties		Units	Test Method
Tensile Modulus	453 ± 28	MPa	ISO 527-1
Tensile Stress at Yield	-	MPa	ISO 527-1
Tensile Stress at Break	24 ± 1	MPa	ISO 527-1
Tensile Strain at Yield	-	%	ISO 527-1
Tensile Strain at Break	250 ± 21	%	ISO 527-1
Flexural Strength	12 ± 1	MPa	ISO 178
Flexural Modulus	247 ± 13	MPa	ISO 178
Izod Impact Strength, notched	7.0 ± 0.7	kJ/m ²	ISO 180
Izod Impact Strength, unnotched	6.2 ± 1.3	kJ/m ²	ISO 180
Charpy Impact Strength	7.7 ± 1.4	kJ/m ²	ISO 179
Hardness [Penetration of the ball in 1/100 of a mm]	6.8 ± 0.9	-	ISO 48

^[a]Property measured using the filament. All remaining properties are measured using 3D test specimens.



Thermal Properties		Units	Test Method
Melt Mass-Flow Rate	6.0 ± 0.5	g/10min	ISO 1133
Heat Deflection (HDT) at 0.455 MPa	95 ± 7	°C	ISO 75
Heat Deflection (HDT) at 1.820 MPa	59 ± 2	°C	ISO 75
Glass Transition, 1Hz	30 – 31	°C	ISO 6721
Coefficient of Thermal Expansion	6 x 10 ⁻⁵	m/m°C	-
Melting Temperature ^[a]	210 – 220	°C	ISO 11357
VICAT Softening Temperature	144 ± 5	°C	ISO 306
Printer Settings ^[b]		Units	Test Method
Extruder Temperature	225 – 235	°C	-
Plate Temperature	0	°C	-
Ventilation	0	%	-

^[b]Recommended settings. For the best results when printing with Filkemp filaments, carefully read the 3D printer manufacturer's instructions manual.

Additional Information

Regulatory Compliance: REACH / RoHs

Spool Weight: 1kg (2.2lbs)

All filaments are supplied in vacuum-sealed packaging containing a desiccant bag

Other sizes, spool weight and packaging are available upon request

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Disclaimer:

This information is based on our current knowledge of raw materials and the manufacturing process and refers to the above mentioned products when leaving Filkemp. It is solely the customer's responsibility to determine if the product and information in this document are appropriate for the customer's end use. Responsibility for the use, storage, handling and disposal of the products herein is that of the purchaser or end user.