

# PETG for 3D Printing

# 834Q

## Fast, tough and easy to use

- Up to 20% higher printing speeds compared to PLA
- Fast cooling and low-temp PETG, designed to extrude at  $-230^{\circ}\text{C}$
- Printed filament yields a rigid, high-tensile part
- Odourless printing with crystal transparency and no warping

Size Specifications <sup>[a]</sup>		Units	Test Method
Nominal Diameter	1.75 / 2.85	mm	-
Diameter Tolerances	$\pm 0.05$ / $\pm 0.15$	mm	-
Mechanical Properties		Units	Test Method
Tensile Modulus	$1880 \pm 60$	MPa	ISO 527-1
Tensile Stress at Yield	n. a.	MPa	ISO 527-1
Tensile Stress at Break	$37.4 \pm 2$	MPa	ISO 527-1
Tensile Strain at Yield	n. a.	%	ISO 527-1
Tensile Strain at Break	$3.0 \pm 0.6$	%	ISO 527-1
Flexural Strength	$81 \pm 3$	MPa	ISO 178
Flexural Modulus	$1740 \pm 270$	MPa	ISO 178
Izod Impact Strength, notched	$2.1 \pm 0.5$	$\text{kJ/m}^2$	ISO 180

<sup>[a]</sup>Property measured using the filament. All remaining properties are measured using 3D test specimens.



Thermal Properties		Units	Test Method
Melt Mass-Flow Rate	7.0 ± 0.5	g/10min	ISO 1133
Heat Deflection (HDT) at 0.455 MPa	74 ± 3	°C	ISO 75
Heat Deflection (HDT) at 1.820 MPa	69 ± 2	°C	ISO 75
Glass Transition, 1Hz	84 – 85	°C	ISO 6721
Coefficient of Thermal Expansion	8 x 10 <sup>-5</sup>	m/m°C	-
Melting Temperature <sup>[a]</sup>	145 – 155	°C	ISO 11357
VICAT Softening Temperature	71 ± 3	°C	ISO 306
Printer Settings <sup>[b]</sup>		Units	Test Method
Extruder Temperature	215 – 230	°C	-
Plate Temperature	0 – 60	°C	-
Ventilation	0 – 50	%	-

<sup>[b]</sup>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.