Ultrafuse

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Preliminary
Technical
Data Sheet

Ultrafuse TPU 80A LF

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General information

Components

Very flexible thermoplastic polyurethane (TPU) based on BASF raw materials designed for Fused Filament Fabrication.

Product Description

Ultrafuse TPU 80A LF is a very flexible filaments that is able to print most of open-platform printers including the ones that have direct drive extruders. It is a very good alternative for applications that require toughness and flexibility .

Delivery form and warehousing

Ultrafuse TPU 85A filament should be stored at 15 - 25°C in its originally sealed package in a clean and dry environment. If the recommended storage conditions are observed the products will have a minimum shelf life of 12 months.

Product safety

Mandatory, recommended industrial hygiene procedures and the relevant industrial safety precautions must be followed whenever this product is being handled and processed. Product is sensitive to humid environment conditions. For additional information please consult the corresponding material safety data sheets.

Notice

The data contained in this publication are based on our current knowledge and experience. In view of the many factors that may affect processing and application of our product, these data do not relieve processors from carrying out their own investigations and tests; neither do these data imply any guarantee of certain properties, nor the suitability of the product for a specific purpose. Any descriptions, drawings, photographs, data, proportions, weights etc. given herein may change without prior information and do not constitute the agreed contractual quality of the product. It is the responsibility of the recipient of our products to ensure that any proprietary rights and existing laws and legislation are observed. The safety data given in this publication is for information purposes only and does not constitute a legally binding Material Safety Data Sheet (MSDS). The relevant MSDS can be obtained upon request from your supplier or you may contact Innofil3D directly at info@innofil3d.com.

Recommended 3D-Print processing parameters

Nozzle Temperature	233 – 240 °C / 451 – 464 °F
Build Chamber Temperature	-
Bed Temperature	50 – 80 °C / 122 – 176 °F
Bed material	Glass
Nozzle Diameter	≥ 0.4 mm
Print Speed	18 – 25 mm/s

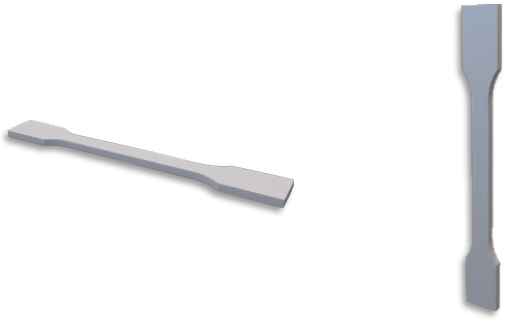
Drying Recommendations

Drying recommendations to ensure printability	Please dry the filament at 70 °C in a hot air dryer for at least 8 hours.

Please note: To ensure constant material properties the material should always be kept dry.

General Properties		Standard
Specific Gravity	1.11	ASTM D792
Shore A hardness	80	ASTM D2240

Mechanical Properties



Print direction	Standard	XY[1]	ZX
		Flat	Upright
Tensile Strength	ASTM D412	22 MPa	17 MPa
Strain at Break	ASTM D412	640%	471%
Stress at 100% elongation	ASTM D412	8 MPa	7 MPa
Stress at 300% elongation	ATSM D412	13 MPa	11 MPa

[1] Specimen are printed with infill lines parallel to testing direction.