



FILATECH
Making It Better

TPU Filament

TPU – THERMOPLASTIC POLYURETHANE

TPU (Thermoplastic Polyurethane) is an elastic, oil/grease resistant, and abrasion-resistant material with a shore hardness of 95A.

TPU Plastic has several applicable uses including automotive instrument panels, caster wheels, power tools, sporting goods, medical devices, drive belts, footwear, inflatable rafts, and a variety of extruded film, sheet and profile applications. It is also commonly used in mobile phone cases.

Our TPU filament is available in different colors and 1.75mm and 2.85mm diameter.

OPTIONS:

Size:	1.75	mm +/- 0.03 mm
	2.85	mm +/- 0.03 mm
Color:	Full Color Range (Special Colors By Order)	
Packaging:	0.5	Kg Spools
	1.0	Kg Spools
	6.0	Kg Spools

FEATURES:

- Flexible elastic material.
- Free from harmful or hazardous materials.
- Excellent flexural fatigue resistance.
- Produces objects with very good layer adhesion.
- Extremely flexible.
- Good tear & abrasion resistance.
- Resistance to low & high temperatures from -30 °C to +80 °C.
- Good colourability.
- Recyclable.
- Shall be printed on heat bed.
- Bed adhesion is usually very good but in case, Blue Painter's Tape can be a choice.

SPECIFICATIONS:

Filament Material:	TPU	
Specific Gravity:	1.2	gr/cm ³
Size:	1.75	mm +/- 0.03 mm
	2.85	mm +/- 0.03 mm
Printing Information:	Extruder: 240 – 260 °C	
	Bed: 40 – 60 °C	
Working Temperature:	Withstands up to 80 °C	

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ENGINEERING PROPERTIES:

Property	Test Method	Unit	Result
Hardness	ASTM D2240	Shore A	85 *
Density	ASTM D792	g/cm ³	1.2
100% Tensile Strength	ASTM D412	MPa	6
300% Tensile Strength	ASTM D412	MPa	9
Tensile Strength	ASTM D412	Mpa	30
Elongation	ASTM D412	%	720
Tear Strength	ASTM D624	N/mm	97

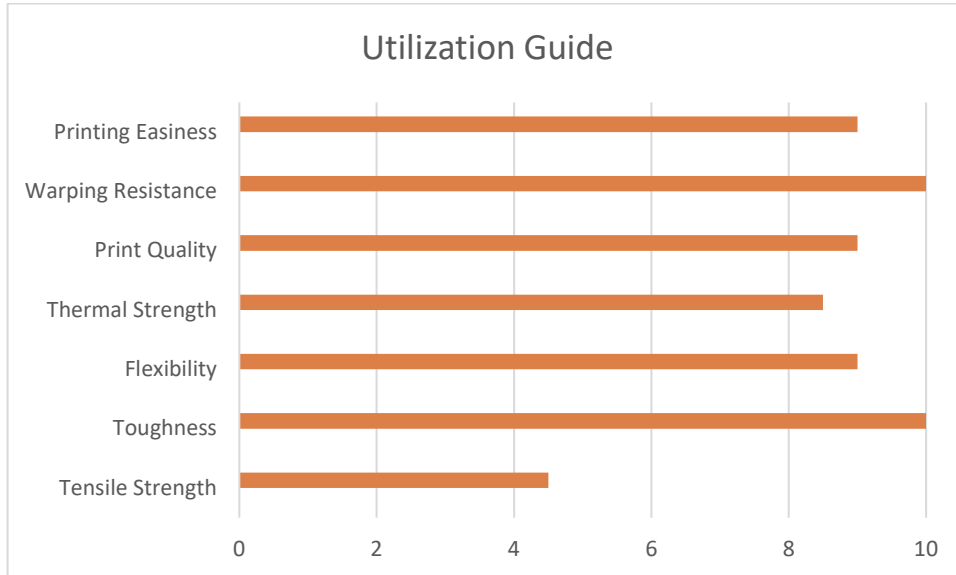
- *Equal to 33 Shore-D*

UTILIZATION GUIDE:

(Comparative, Out of 10)

Tensile Strength	4.5
Toughness	10
Flexibility	9
Thermal Strength	8.5
Print Quality	9
Warping Resistance	10
Printing Easiness	9

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CERTIFICATES:

Management:	BS EN ISO 9001:2015
Quality:	CE (CE-2924)
Environment:	RoHS (UQ-5724)