



**FILATECH**  
Making It Better

# TPU Filament

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## 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
	30	Gr Loops (Sample)

### 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 <sup>3</sup>
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 <sup>3</sup>	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*

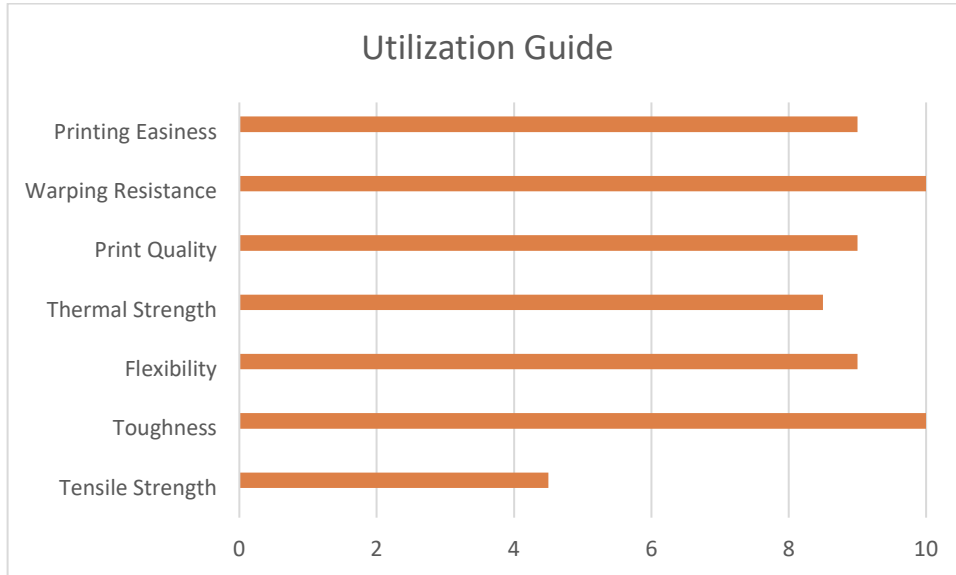
## UTILIZATION GUIDE:

*(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)