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.

Filatech TPU+ is a modified TPU filament with better flexibility and resilience, 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:	1.19	gr/cm3
Size:	1.75	mm -/+ 0.03 mm
	2.85	mm -/+ 0.03 mm
Printing Information:	Extruder: 210 – 240 °C	
	Bed:	40 – 60 °C
Working Temperature:	Withstands up to 80 °C	

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ENGINEERING PROPERTIES:

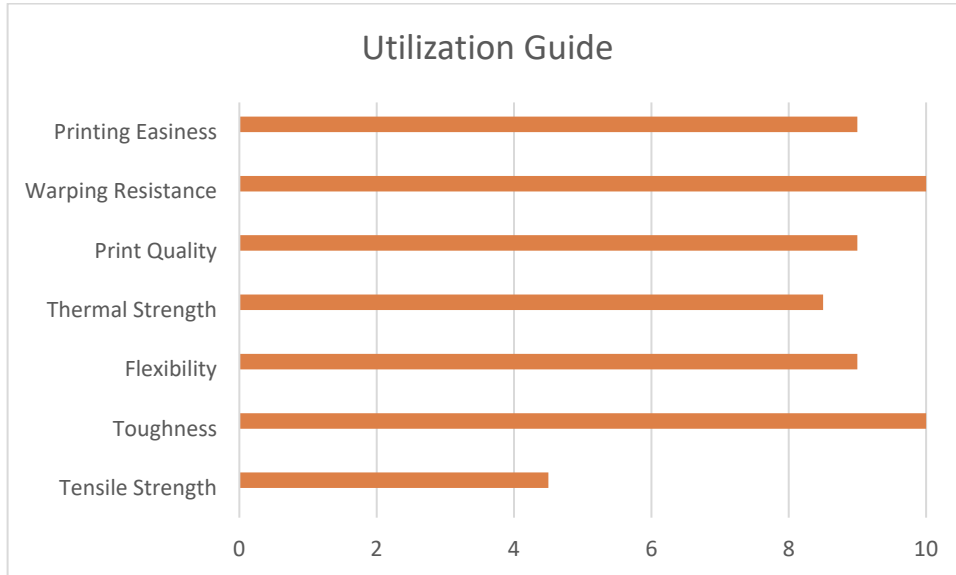| Property	Test Method	Unit	Result
Hardness	ASTM D2240	Shore A	85 *
Density	ASTM D792	g/cm^3	1.19
100% Tensile Strength	ASTM D412	MPa	6
300% Tensile Strength	ASTM D412	MPa	9
Tensile Strength	ASTM D412	Mpa	30
Elongation	ASTM D412	%	720
Tear Strength	ASTM D624	N/mm	97

- *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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Utilization Guide

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

CERTIFICATES:

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