



FILATECH
Making It Better

TPE Filament

TPE – THERMOPLASTIC ELASTOMER

TPE filament is a flexible 3D printing material that feels and acts much like flexible rubber. TPE filament can be used to make parts that can bend or must flex to fit their environment: stoppers, belts, springs, phone cases, and more.

This extremely flexible 3D printer material will allow you to create 3D prints that will have the properties of a soft rubber. Due to its flexibility, much slower print speeds must be used to keep the filament from binding in the extruder.

Our TPE 3D printing filament is available in various 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 rubber-like 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:	TPE	
Specific Gravity:	1.06	gr/cm3
Size:	1.75	mm +/- 0.03 mm
	2.85	mm +/- 0.03 mm
Printing Information:	Extruder: 210 – 255 °C	
	Bed: 20 – 55 °C	
Working Temperature:	Withstands up to 100 °C	

TPE Filament

ENGINEERING PROPERTIES:

Property	Condition	Test Method	Unit	Result
Density		ASTM D792	g/cm ³	1.06
Contraction	MD	ASTM D995	%	0.6-1.1
MFI	200°C/5kg	ASTM D1238	g/10min	22
Viscosity	1/s, 200°C	ASTM D3835	cP	10700
Hardness Shore-A	10s	ASTM D2240		80*
Tensile Strength	C2, 23°C	ASTM D412	MPa	6.70
Tensile Strength	C2, 100%,23°C	ASTM D412	MPa	3.65
Tensile Strength	C2, 300%,23°C	ASTM D412	Mpa	4.00
Elongation	C2, 23°C	ASTM D412	%	620
Tear Strength		ASTM D624	kN/m	33.0
Compressive Deformation	23°C, 22hr	ASTM D395B	%	26
Fire Rate		UL-94	1.50mm	HB
Fire Rate		UL-94	3.00mm	HB

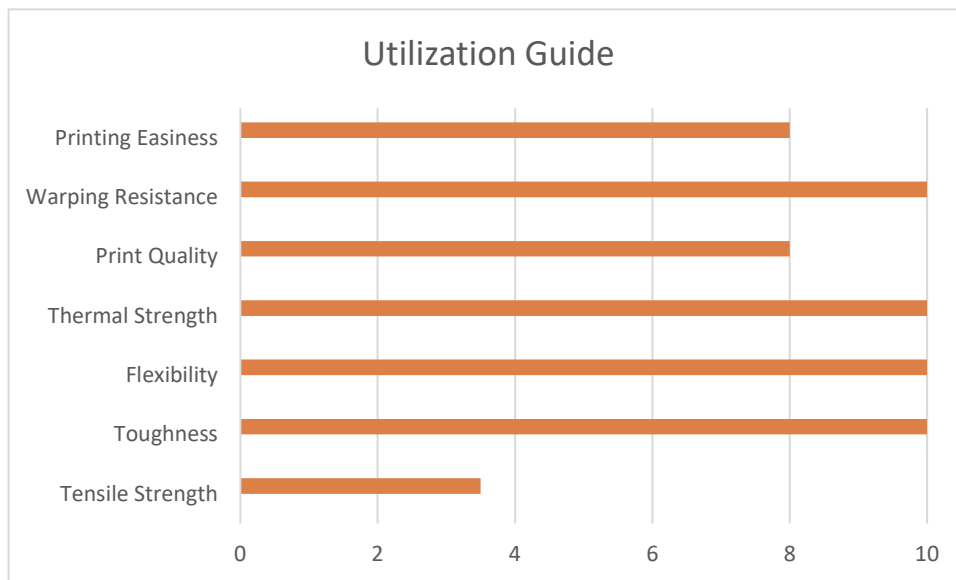
- Equal to 29 Shore-D

TPE Filament

UTILIZATION GUIDE:

(Comparative, Out of 10)

Tensile Strength	3.5
Toughness	10
Flexibility	10
Thermal Strength	10
Print Quality	8
Warping Resistance	10
Printing Easiness	8



CERTIFICATES:

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