

Technical Data Sheet (TDS)

Standard TPU

ERYONE Standard TPU material is not only soft but also extremely tough and abrasion-resistant, while also possessing excellent impact resistance, effectively absorbing impact force and maintaining performance even after repeated bending. It is an ideal choice for phone cases and other electronic device protective covers. To reduce stringing, the material needs to be properly dried and the retraction distance increased. Its hardness is 95A.

Part I: Suggests Printing Parameters

Parameter	Set up
Nozzle temperature	200-220 °C
Bed temperature	0-60°C
Bed material	glass, PEI, spring steel plate
Bottom printing temperature	200-220 °C
Sealed printing	Supports open/closed printing
Printing speed	≤80mm/s
Drying conditions	65°C, 8H

Part II: Physical Properties of Materials

Property	Testing Method	Unit	Typical Value
Density(g/cm ³ at 21.5 ° C)	ASTM D792 (ISO 1183, GB/T 1033)	g/cm ³	1.22
Heat distortion temperature(° C)	ASTM D648 0.45MPa	°C	70
Melt Index(g/10 min)	210 ° C, 2.16 kg	g/10min	36

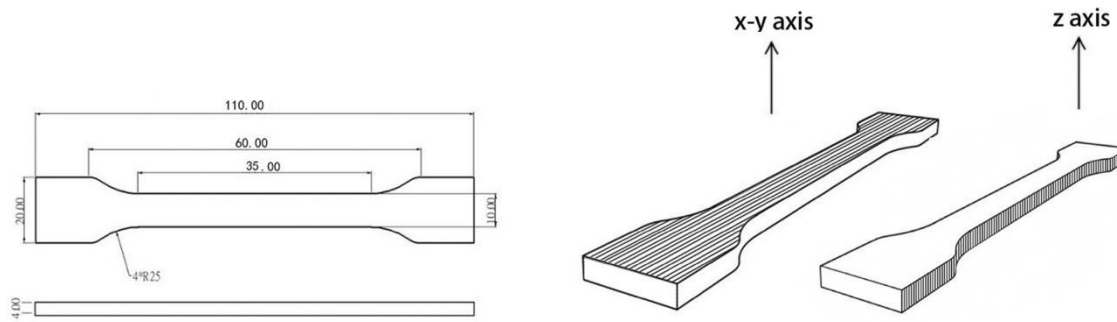


Property	Test conditions	Test standards	unit	Typical Value
Tensile strength X-Y	50mm/min	GB/T 1040.4	MPa	27.3
Elastic modulus X-Y	50mm/min	GB/T 1040.1-2006	MPa	27
Elongation at break X-Y	50mm/min	GB/T 1040.4	%	501.3
Tensile strength X-Z	50mm/min	GB/T 1843	MPa	22
Charpy Impact strenght	2.75J	GB/T 1843	kJ/m2	120

Note: All splines are printed under the following conditions: printing temperature=220 ° C, printing speed=100mm/s, base plate 55° C, filling=100%, nozzle diameter=0.4mm

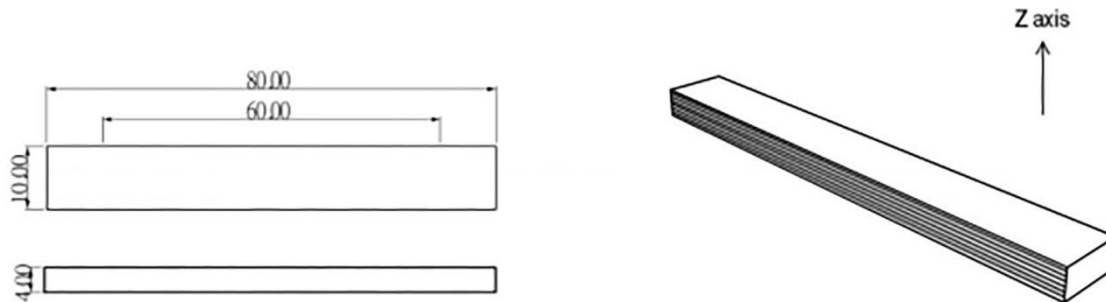
TENSILE TESTING SPECIMEN

ISO 527,GB/T 1040



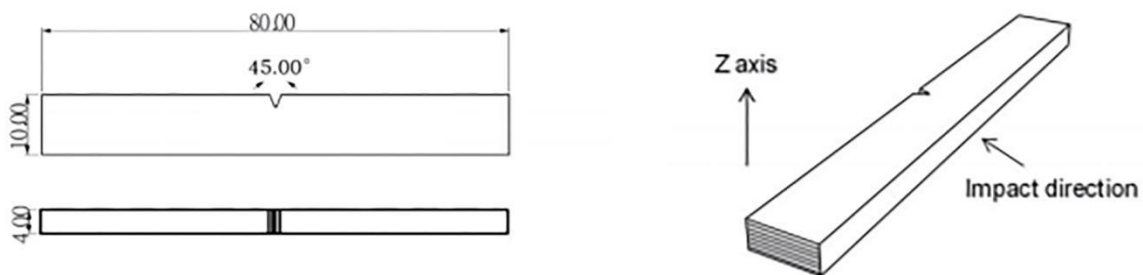
FLEXURAL TESTING SPECIMEN

ISO 178,GB/T 9341



IMPACT TESTING SPECIMEN

ISO 179,GB/T 1043



Disclaimers

The values given in this data table are for reference and comparison only. They should not be used for design specifications or quality control. The actual value may vary depending on the printing conditions. The final performance of printed components depends not only on the material, but also on the component design, environmental conditions, printing conditions, and so on. Product specifications are subject to change without prior notice.