



TPU 85A Thermoplastic Polyurethane

Mechanical Properties

Type	Test Method	Imperial	Metric
Tensile Strength, Ultimate	ASTM D638	3,700 psi	26 MPa
Tensile Strength, Yield	ASTM D638	580 psi	4 MPa
Tensile Elongation at Yield	ASTM D638	65%	65%
Tensile Modulus	ASTM D638	1,800 psi	12 MPa
Tensile Elongation at Break	ASTM D638	660%	660%
Toughness (stress x strain)	ASTM D638	12,000 in-lbF/in ³	82.7 m*N/m ³ x10 ⁶
Hardness	ASTM D2240	85 Shore A	85 Shore A
Impact Strength (Notched Izod, 23 °C)	ASTM D256	2.0 ft.lbf/in ²	4.2 kJ/m ²
Abrasion Resistance (Mass loss, 10,000 cycles)	ASTM D4060	0.08 g	0.08 g

Thermal & General Properties

Type	Test Method	Imperial	Metric
Heat Deflection at 0.45 MPa	ASTM D648	111°F	44°C
Heat Deflection at 0.07 MPa	ASTM D648	140°F	60°C
Moisture Absorption – 24 hours	ASTM D570	0.22%	0.22%

