



Thermoplastic Polyurethane (TPU-EL72)

SPECIFICATIONS

Property	Spec	Value
Hardness	DIN 53505	74D
Density (g/cm ³)	DIN 53479	1.20
Tensile Strength (N/mm ²)	D412	48.9
Ultimate Elongation	D412	230.0%
100% Modulus (N/mm ²)	D412	36.5
200% Modulus (N/mm ²)	D412	40.7
Split Tear (kN/m)	D470	24.5
Die C Tear (kN/m)	D624	158.0
Compressive Modulus	D575	
5% (N/mm ²)		14.8
10% (N/mm ²)		25.5
15% (N/mm ²)		32.4
20% (N/mm ²)		41.4
25% (N/mm ²)		50.0
Minimum Service Temp.		-35° C -31° F
Maximum Service Temp.		110° C 230° F
Brittle Temp.	D746	-70° C -94° F
Color		Natural/Yellow

DESCRIPTION

MP07 is a TPU material with hardness 74 Shore D, specially compounded for high performance applications. The polyurethane polymer industry has enormous categories of products for a wide variety of applications. Polyurethane used in the seal industry is a thermoplastic elastomer (TPU). As the name suggests, it behaves like an elastomer but the chemistry is of a thermoplastic. The elasticity of a TPU is brought about through polymer morphology phase changes as in thermoplastics not through vulcanization as seen in other elastomers. Because of its thermoplastic nature, TPU has excellent tensile strength and abrasion resistance that other elastomers are unable to match. Meanwhile, TPUs also have good flexibility and shock absorbing performance. An additional advantage of TPUs is that they can be molded using conventional thermoplastic processes.