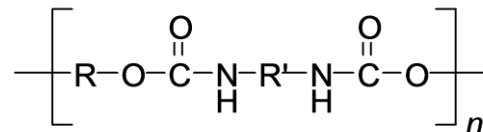


High Temperature Thermoplastic Polyurethane (TPU)



SPECIFICATIONS

Property	Spec	Value
Density (g/ cm ³)	DIN 53479	1.09 ±0.03
Hardness at 23°C (Shore A)	DIN 53505	96 ± 2
Hardness at +100°C (Shore A)	DIN 53505	93 ± 2
100% Modulus	DIN 53504	≥10 N/mm ²
300% Modulus	DIN 53504	≥25 N/mm ²
Tensile Strength	DIN 53504	≥45 N/mm ²
Elongation at break	DIN 53504	≥350 %
Tear strength	DIN 53515	≥110 kN/m
Compression set, 24h, 70°C, 25%	DIN 53517	≤25%
Compression set, 24h, 100°C, 25%	DIN 53517	≤30%
Compression set, 24h, 125°C, 25%	DIN 53517	≤65%
Color		Orange
Temperature Range		-30°C to 135°C

DESCRIPTION

MP04 is a TPU material with hardness 96±2 Shore A and 93±2A, specially compounded for high temperature 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.