



Thermoplastic Polyurethane (TPU Injection Molded Grade)

SPECIFICATIONS

Property	Spec	Value
Hardness	DIN 53505	95A
Hardness	DIN 53505	48D
Density	DIN 53479	1.22 g/cm ³
Tensile Strength	DIN 53504	50 N/mm ²
Ultimate Elongation	DIN 53504	450%
20% Modulus	DIN 53504	10 N/mm ²
100% Modulus	DIN 53504	14 N/mm ²
300% Modulus	DIN 53504	28 N/mm ²
Tear Strength	DIN 53515	140 N/mm ²
Abrasion	DIN 53516	40mm ³
Compression Set 70C 24 Hrs	DIN 53517	25%
Compression Set 100C 24hrs	DIN 53517	35%
Brittle Point	DIN 53513	-40°C
Color		RED

DESCRIPTION

MM03 is a TPU material with hardness 95 Shore A and 48 Shore D, specially compounded for injection molded 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.