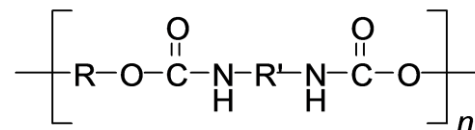


## Thermoplastic Polyurethane (TPU Injection Molded Grade)



### SPECIFICATIONS

Property	Spec	Value
Hardness (after 3 sec.)	ASTM D 2240	92 Shore A
Hardness (after 3 sec.)	ASTM D 2240	46 Shore D
Density	ASTM D 792	1.13 g/cm <sup>3</sup>
Tensile Strength	ASTM D 412	5660 psi
Elongation @ break	ASTM D 412	580%
Tensile stress @ 20% elongation	ASTM D 412	940 psi
Tensile stress @ 50% elongation	ASTM D 412	1300 psi
Tensile stress @ 100% elongation	ASTM D 412	1660 psi
Tensile stress @ 300% elongation	ASTM D 412	2610 psi
Tear strength	ASTM D 624	740 pli
Abrasion	ISO 4649	20mm <sup>3</sup>
Bayshore rebound resilience	ASTM D 2632	41%
Compression set at 70h @ 23°C	ASTM D 395	14%
Compression set at 22h @ 70°C	ASTM D 395	20%
Compression set at 22h @ 100°C	ASTM D 395	33%
Compression set at 70h @ 100°C	ASTM D 395	50%

### DESCRIPTION

MM68 is a TPU material with hardness 92A, specially compounded ether-based polyurethane. 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.