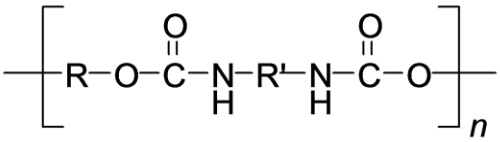
systemseals

MATERIAL SPECIFICATION SHEET

MP85



Thermoplastic Polyurethane

SPECIFICATIONS

Property	Spec	Value
Hardness	DIN 53505	90A
Density	DIN 53479	1.08 g/cm³
Tensile Strength	D412	28.26 N/mm²
Ultimate Elongation	D412	450.0%
100% Modulus	D412	6.89 N/mm²
300% Modulus	D412	11.72 N/mm²
Split Tear	D470	11.38 kN/m
Die C Tear	D624	64.8 kN/m
Compressive Modulus 5% 10% 15% 20% 25%	D575	 1.45 N/mm² 2.41 N/mm² 3.38 N/mm² 4.69 N/mm² 6.48 N/mm²
Min Service Temp		-35°C -31°F
Max Service Temp		110°C 230°F
Brittle Temp	D746	-70°C -94°F
Color		Navy Blue

DESCRIPTION

MP85 is a TPU material with hardness 90 Shore A. 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.