

MM41

Blue Injection Molded (H-PU 95A)

$$- \left[R - O - \overset{O}{C} - \overset{O}{N} - R - \overset{O}{N} - \overset{O}{C} - O \right]_{n}$$

SPECIFICATIONS

Properties	Condition	Standard	Unit
Color			Blue
Hardness	23°C	ISO 868	95±2 Shore A
Hardness	23°C	ISO 868	48±3 Shore D
Modulus 100%	23°C	DIN 53 504	≥15 MPa ≥2175psi
Modulus 300%	23°C	DIN 53 504	≥28MPa ≥4160psi
Tensile Strength	23°C	DIN 53 504	≥50MPa ≥7250psi
Elongation @break	23°C	DIN 53 504	≥ 350 %
Tear Strength	23°C	DIN ISO 34-1	≥110kN/m ≥570lbf/inch
Specific Gravity	23°C	ISO 1183	1200kg/m³ 1.2 g/cm³
Abrasion	23°C	DIN 53 516	17mm³
Compression Set	*	ISO 815	≤27%
Compression Set	**	ISO 815	≤33%
Min Service Temp			-20°C -4°F
Max Service Temp			115°C 240°F

^{*24}H 70°C 25% DEF.

Copolymer, based on aromatic isocyanate and diols.
Resistance to oil, hot water, hot air, ozone, synthetic and native esters.
Not resistant to conc. Acids, conc. Lyes, conc. Alcohols and aromatic solvents.

DESCRIPTION

MM41 is a HPU material with hardness 95A, specially compounded thermoplastic polyurethane with resistance to hydrolysis. 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.

^{**24}H 100°C 25% DEF.