



Texin DP7-1050

Polyether-based TPU grades / Shore hardness A 86 - 90

Developmental product
Polyether-based thermoplastic polyurethane with a Shore hardness of approximately 90A. It can be processed by injection molding or extrusion.

ISO Shortname

Property	Test Condition	Unit	Standard	Value
Rheological properties				
Mold shrinkage, flow/cross to flow	Value range based on general practical experience	in/in	ASTM D 955	0.008
Mechanical properties (23 °C/50 % r.h.)				
Flexural modulus	73 °F	lb/in ²	ASTM D 790	6000
Tensile strength		lb/in ²	ASTM D 412	5000
Ultimate elongation		%	ASTM D 412	450
Tensile stress at 50 % elongation		lb/in ²	ASTM D 412	1000
Tensile stress at 100 % elongation		lb/in ²	ASTM D 412	1100
Tensile stress at 300 % elongation		lb/in ²	ASTM D 412	2000
Compression set, as molded	22 h at 73 °F	%	ASTM D 395-B	20
Compression set, as molded	22 h at 158 °F	%	ASTM D 395-B	75
Compression set, post-cured	22 h at 73 °F; post-cured 16 h at 230 °F	%	ASTM D 395-B	13
Compression set, post-cured	22 h at 158 °F; post-cured 16 h at 230 °F	%	ASTM D 395-B	35
Compressive load	2% deflection	lb/in ²	ASTM D 575	100
Compressive load	5% deflection	lb/in ²	ASTM D 575	250
Compressive load	10% deflection	lb/in ²	ASTM D 575	450
Compressive load	15% deflection	lb/in ²	ASTM D 575	650
Compressive load	20% deflection	lb/in ²	ASTM D 575	850
Compressive load	25% deflection	lb/in ²	ASTM D 575	1050
Compressive load	50% deflection	lb/in ²	ASTM D 575	2800
Tear strength, Die C		lb/fin	ASTM D 624	550
Thermal properties				
Glass transition temperature	DMA=Dynamic Mechanical Analysis	°F	DMA	-47
Low-temperature brittle point		°F	ASTM D 746	< -90
Vicat softening temperature	Rate A; 1 kg; 50 °C/h	°F	ASTM D 1525	223
Other properties (23 °C)				
Specific gravity		-	ASTM D 792	1.13
Shore hardness		A Scale	ASTM D 2240	90
Taber abrasion	H-18 wheel; 1,000-g; 1,000 cycles	mg Loss	ASTM D 3489	25
Bayshore resilience		%	ASTM D 2632	40