



Texin 390

Polyester-based TPU grades / Shore hardness A 84 - 90

Aromatic polyester-based thermoplastic polyurethane with Shore A hardness of approximately 88 for injection molding. Extrusion not recommended.

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	5500
Flexural modulus	-22 °F	lb/in ²	ASTM D 790	26000
Tensile strength		lb/in ²	ASTM D 412	6000
Ultimate elongation		%	ASTM D 412	540
Tensile stress at 50 % elongation		lb/in ²	ASTM D 412	1150
Tensile stress at 100 % elongation		lb/in ²	ASTM D 412	1200
Tensile stress at 300 % elongation		lb/in ²	ASTM D 412	2800
Compression set, as molded	22 h at 73 °F	%	ASTM D 395-B	16
Compression set, as molded	22 h at 158 °F	%	ASTM D 395-B	65
Compression set, post-cured	22 h at 73 °F; post-cured 16 h at 230 °F	%	ASTM D 395-B	12
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	200
Compressive load	10% deflection	lb/in ²	ASTM D 575	400
Compressive load	15% deflection	lb/in ²	ASTM D 575	600
Compressive load	20% deflection	lb/in ²	ASTM D 575	800
Compressive load	25% deflection	lb/in ²	ASTM D 575	1000
Compressive load	50% deflection	lb/in ²	ASTM D 575	3050
Tear strength, Die C		lbf/in	ASTM D 624	700
Thermal properties				
Glass transition temperature	DMA=Dynamic Mechanical Analysis	°F	DMA	-33
Low-temperature brittle point		°F	ASTM D 746	< -90
Vicat softening temperature	Rate A; 1 kg; 50 °C/h	°F	ASTM D 1525	246
Coefficient of linear thermal expansion, flow/cross-flow		in/in/°F	ASTM D 696	0.0008
Other properties (23 °C)				
Specific gravity		-	ASTM D 792	1.22
Shore hardness		A Scale	ASTM D 2240	88
Taber abrasion	H-18 wheel; 1,000-g; 1,000 cycles	mg Loss	ASTM D 3489	40
Bayshore resilience		%	ASTM D 2632	35

