



Texin 250

Polyester-based TPU grades / Shore hardness D 45 - 70

Aromatic polyester-based thermoplastic polyurethane for injection molding and 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	158 °F	lb/in ²	ASTM D 790	5200
Flexural modulus	-22 °F	lb/in ²	ASTM D 790	323900
Tensile strength		lb/in ²	ASTM D 412	6000
Ultimate elongation		%	ASTM D 412	450
Tensile stress at 50 % elongation		lb/in ²	ASTM D 412	1400
Tensile stress at 100 % elongation		lb/in ²	ASTM D 412	1600
Tensile stress at 300 % elongation		lb/in ²	ASTM D 412	3500
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, as molded	22 h at 212 °F	%	ASTM D 395-B	90
Compression set, post-cured	22 h at 73 °F; post-cured 16 h at 230 °F	%	ASTM D 395-B	15
Compression set, post-cured	22 h at 158 °F; post-cured 16 h at 230 °F	%	ASTM D 395-B	35
Compression set, post-cured	22 h at 212 °F; post-cured 16 h at 230 °F	%	ASTM D 395-B	100
Compressive load		lb/in ²	ASTM D 575	4096
Compressive load	2% deflection	lb/in ²	ASTM D 575	75
Compressive load	5% deflection	lb/in ²	ASTM D 575	289
Compressive load	10% deflection	lb/in ²	ASTM D 575	591
Compressive load	15% deflection	lb/in ²	ASTM D 575	866
Compressive load	20% deflection	lb/in ²	ASTM D 575	1142
Compressive load	25% deflection	lb/in ²	ASTM D 575	1437
Tear strength, Die C		lbf/in	ASTM D 624	775
Thermal properties				
Glass transition temperature	DMA=Dynamic Mechanical Analysis	°F	DMA	-4.0
Vicat softening temperature	Rate A; 1 kg; 50 °C/h	°F	ASTM D 1525	239
Coefficient of linear thermal expansion, flow/cross-flow		in/in/°F	ASTM D 696	7.0 E-05
Other properties (23 °C)				
Specific gravity		-	ASTM D 792	1.22
Shore hardness		D Scale	ASTM D 2240	52
Taber abrasion	H-18 wheel; 1,000-g; 1,000 cycles	mg Loss	ASTM D 3489	70
Bayshore resilience		%	ASTM D 2632	25

