



Texin 185

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

Aromatic polyester-based thermoplastic polyurethane with a Shore hardness of approximately 87A. It can be processed by either 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	5000
Flexural modulus	-22 °F	lb/in ²	ASTM D 790	16800
Tensile strength		lb/in ²	ASTM D 412	4500
Ultimate elongation		%	ASTM D 412	600
Tensile stress at 50 % elongation		lb/in ²	ASTM D 412	900
Tensile stress at 100 % elongation		lb/in ²	ASTM D 412	1000
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	21
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	19
Compression set, post-cured	22 h at 158 °F; post-cured 16 h at 230 °F	%	ASTM D 395-B	40
Compressive load	2% deflection	lb/in ²	ASTM D 575	50
Compressive load	5% deflection	lb/in ²	ASTM D 575	150
Compressive load	10% deflection	lb/in ²	ASTM D 575	300
Compressive load	15% deflection	lb/in ²	ASTM D 575	450
Compressive load	20% deflection	lb/in ²	ASTM D 575	600
Compressive load	25% deflection	lb/in ²	ASTM D 575	750
Compressive load	50% deflection	lb/in ²	ASTM D 575	2175
Tear strength, Die C		lbf/in	ASTM D 624	650
Thermal properties				
Glass transition temperature	DMA=Dynamic Mechanical Analysis	°F	DMA	-22
Low-temperature brittle point		°F	ASTM D 746	< -40
Vicat softening temperature	Rate A; 1 kg; 50 °C/h	°F	ASTM D 1525	190
Other properties (23 °C)				
Specific gravity		-	ASTM D 792	1.26
Shore hardness		A Scale	ASTM D 2240	87
Taber abrasion	H-18 wheel; 1,000-g; 1,000 cycles	mg Loss	ASTM D 3489	50
Bayshore resilience		%	ASTM D 2632	35

