



Texin 245

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

Aromatic polyester-based thermoplastic polyurethane with approximate Shore D hardness of 45 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	10000
Flexural modulus	158 °F	lb/in ²	ASTM D 790	4500
Izod notched impact strength	73 °F, 0.125 in	ft-lb/in	ASTM D 256	no break
Izod notched impact strength	-22 °F; 0.125 in	ft-lb/in	ASTM D 256	3.3
Tensile strength		lb/in ²	ASTM D 412	6000
Ultimate elongation		%	ASTM D 412	500
Tensile stress at 50 % elongation		lb/in ²	ASTM D 412	1100
Tensile stress at 100 % elongation		lb/in ²	ASTM D 412	1300
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	18
Compression set, as molded	22 h at 158 °F	%	ASTM D 395-B	43
Compression set, as molded	22 h at 212 °F	%	ASTM D 395-B	60
Compression set, post-cured	22 h at 73 °F; post-cured 16 h at 230 °F	%	ASTM D 395-B	18
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	35
Compressive load	2% deflection	lb/in ²	ASTM D 575	100
Compressive load	5% deflection	lb/in ²	ASTM D 575	300
Compressive load	10% deflection	lb/in ²	ASTM D 575	560
Compressive load	15% deflection	lb/in ²	ASTM D 575	800
Compressive load	20% deflection	lb/in ²	ASTM D 575	1000
Compressive load	25% deflection	lb/in ²	ASTM D 575	1300
Compressive load	50% deflection	lb/in ²	ASTM D 575	3400
Tear strength, Die C		lbf/in	ASTM D 624	700
Thermal properties				
Glass transition temperature	DMA=Dynamic Mechanical Analysis	°F	DMA	-51
Low-temperature brittle point		°F	ASTM D 746	< -90
Vicat softening temperature	Rate A; 1 kg; 50 °C/h	°F	ASTM D 1525	298
UL94 Flame Class	Thickness tested: 1.5 mm	Class	UL 94	HB
Other properties (23 °C)				
Specific gravity		-	ASTM D 792	1.21
Shore hardness		D Scale	ASTM D 2240	45
Taber abrasion	H-18 wheel; 1,000-g; 1,000 cycles	mg Loss	ASTM D 3489	70
Bayshore resilience		%	ASTM D 2632	45