Texin 270

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Aromatic polyester-based thermoplastic polyurethane with Shore D hardness of approximately 70 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 D955	0.008
Mechanical properties (23 °C/50 % r. h.)					
	Flexural modulus	73 °F	lb/in²	ASTM D790	105000
	Flexural modulus	158 °F	lb/in²	ASTM D790	15000
	Flexural modulus	-22 °F	lb/in²	ASTM D790	422000
	Tensile strength		lb/in²	ASTM D412	6000
	Ultimate elongation		%	ASTM D412	250
	Tensile stress at 50 % elongation		lb/in²	ASTM D412	4100
	Tensile stress at 100 % elongation		lb/in²	ASTM D412	4300
	Tensile stress at 300 % elongation		lb/in²	ASTM D412	5700
	Compression set, as molded	22 h at 73 °F	%	ASTM D395-B	50
	Compression set, as molded	22 h at 158 °F	%	ASTM D395-B	85
	Compression set, post-cured	22 h at 73 °F; post-cured 16 h at 230 °F	%	ASTM D395-B	30
	Compression set, post-cured	22 h at 158 °F; post-cured 16 h at 230 °F	%	ASTM D395-B	45
	Compressive load	2% deflection	lb/in²	ASTM D575	550
	Compressive load	5% deflection	lb/in²	ASTM D575	1900
	Compressive load	10% deflection	lb/in²	ASTM D575	3150
	Compressive load	15% deflection	lb/in²	ASTM D575	3750
	Compressive load	20% deflection	lb/in²	ASTM D575	4250
	Compressive load	25% deflection	lb/in²	ASTM D575	4900
	Compressive load	50% deflection	lb/in²	ASTM D575	9550
	Tear strength, Die C		lbf/in	ASTM D624	1300
Thermal properties					
	Glass transition temperature	DMA=Dynamic Mechanical Analysis	°F	DMA	32
	Low-temperature brittle point		°F	ASTM D746	< -90
	Deflection temperature under load	66 psi	°F	ASTM D648	115
	Deflection temperature under load	264 psi	°F	ASTM D648	100
	Vicat softening temperature	Rate A; 1 kg; 50 °C/h	°F	ASTM D1525	316
	Coefficient of linear thermal expansion, flow/cross-flow		in/in/°F	ASTM D696	0.00005
Other properties (23 °C)					
	Specific gravity		-	ASTM D792	1.24
	Shore hardness		D Scale	ASTM D2240	70
	Taber abrasion	H-18 wheel; 1,000-g; 1,000 cycles	mg Loss	ASTM D3489	90
	Bayshore resilience		%	ASTM D2632	55