

# Texin 270

/ 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
<b>Rheological properties</b>				
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/in <sup>2</sup>	ASTM D790	105000
Flexural modulus	158 °F	lb/in <sup>2</sup>	ASTM D790	15000
Flexural modulus	-22 °F	lb/in <sup>2</sup>	ASTM D790	422000
Tensile strength		lb/in <sup>2</sup>	ASTM D412	6000
Ultimate elongation		%	ASTM D412	250
Tensile stress at 50 % elongation		lb/in <sup>2</sup>	ASTM D412	4100
Tensile stress at 100 % elongation		lb/in <sup>2</sup>	ASTM D412	4300
Tensile stress at 300 % elongation		lb/in <sup>2</sup>	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/in <sup>2</sup>	ASTM D575	550
Compressive load	5% deflection	lb/in <sup>2</sup>	ASTM D575	1900
Compressive load	10% deflection	lb/in <sup>2</sup>	ASTM D575	3150
Compressive load	15% deflection	lb/in <sup>2</sup>	ASTM D575	3750
Compressive load	20% deflection	lb/in <sup>2</sup>	ASTM D575	4250
Compressive load	25% deflection	lb/in <sup>2</sup>	ASTM D575	4900
Compressive load	50% deflection	lb/in <sup>2</sup>	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

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## Disclaimer

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