



Texin 945 U

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Aromatic polyether-based grade thermoplastic polyurethane with approximate Shore D hardness of 45 for injection molding, extrusion, and blow molding.

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/in ²	ASTM D790	15000
Flexural modulus	158 °F	lb/in ²	ASTM D790	5000
Tensile strength		lb/in ²	ASTM D412	6000
Ultimate elongation		%	ASTM D412	400
Tensile stress at 50 % elongation		lb/in ²	ASTM D412	1400
Tensile stress at 100 % elongation		lb/in ²	ASTM D412	1600
Tensile stress at 300 % elongation		lb/in ²	ASTM D412	3500
Compression set, as molded	22 h at 73 °F	%	ASTM D395-B	22
Compression set, as molded	22 h at 158 °F	%	ASTM D395-B	75
Compression set, post-cured	22 h at 73 °F; post-cured 16 h at 230 °F	%	ASTM D395-B	20
Compression set, post-cured	22 h at 158 °F; post-cured 16 h at 230 °F	%	ASTM D395-B	40
Compressive load	2% deflection	lb/in ²	ASTM D575	130
Compressive load	5% deflection	lb/in ²	ASTM D575	305
Compressive load	10% deflection	lb/in ²	ASTM D575	550
Compressive load	15% deflection	lb/in ²	ASTM D575	775
Compressive load	20% deflection	lb/in ²	ASTM D575	1000
Compressive load	25% deflection	lb/in ²	ASTM D575	1215
Compressive load	50% deflection	lb/in ²	ASTM D575	3125
Tear strength, Die C		lbf/in	ASTM D624	725
Thermal properties				
Glass transition temperature	DMA=Dynamic Mechanical Analysis	°F	DMA	-40
Low-temperature brittle point		°F	ASTM D746	< -90
Vicat softening temperature		°F	ASTM D1525	240
Other properties (23 °C)				
Specific gravity		-	ASTM D792	1.14
Shore hardness		D Scale	ASTM D2240	50
Taber abrasion	H-18 wheel; 1,000-g; 1,000 cycles	mg Loss	ASTM D3489	60
Bayshore resilience		%	ASTM D2632	35

