

PROPERTY	UNITS	TEST RESULT	REMARKS	TEST METHOD	
Tensile Strength (ultimate)	PSI/MPa	6,000 PSI/41 MPa		ASTM D412	
Compression — deflection stress (ST7506FR.25 cell, 1" thick)	PSI	1.46 1.45 1.65 1.83 2.04 2.32 2.85 3.32	10% deflection 20% deflection 30% deflection 40% deflection 50% deflection 60% deflection 70% deflection 75% deflection	ASTM D3574 Method C	
Density (ST7506FR.25 cell, 1" thick)	gr/cm ³ (lbs/cu ft)*	1.14 (TPU film/resin only): .040 oz/in ³	*Providing support at 1" thickness or less, density as shown in oz/in ³		
Durability under fatigue (ST7506FR.25 cell, 1" thick)	% loss in return force @ 40% deflection loss in thickness	1,000 cycles 8,000 cycles 24 hour recovery time 80,000 cycles 24 hour recovery time	1.72 PSI 6.07% reduction 1.53 PSI 16.34% reduction 1.65 PSI 9.8% reduction 1.56 PSI 14.76% reduction 1.67 PSI 8.8% reduction	no thickness change .001" thickness change no thickness change .008" thickness change .008" thickness change	ASTM D3574 Method 1.3 (dynamic force pounding)
Other properties:					
Peel strength of node bonds	lbs/in	For thickness of .010, exceeded film strength	180° peel @ 23°C	ASTM D903	
Continuous service temp.	*C (*F)	-51 to 93 (-60 to 200)			
Melting point	*C (*F)	176 to 198 (350–390)			
Humidity aging resistance		excellent (polyether resin)	film/resin property	D3574 Method J	
Fuel & oil resistance		excellent	film/resin property	D3574 Method K	
UV resistance		good to excellent	film/resin property	(22 hrs @ 140°C)	
Ozone resistance		excellent	film/resin property		
Flammability		12 second Vertical Burn Test — pass	film/resin property		
		14CFR 25.853(a), Appendix F,			
		Part I, (a)(I)(II) — pass			
Toxicity		AB00031, AITM 3.0005 — pass			

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