

Product Name: TPU 2180

Polyurethane Coated both sides membrane, Nylon fabric, Weathering Resistance.

End Use: Collapsible Fuel Tanks

Complies with: MIL-T-52983F and MIL-PRF-32233B.

Properties Test & Method	Typical Characteristics	
	English	Metric
Base Fabric	Nylon 1690 Den 13.9 [Oz/yd ²]	Nylon 1880 Dtx 470 [gr/m ²]
Total Weight ASTM D 751	35.3 [Oz/yd ²]	1200 [gr/m ²]
Breaking Strength - Strip ASTM D 751 method B - Dry	725 / 615 [lbs/inch]	6500 / 5500 [N/5 cm]
Breaking Strength - Strip ASTM D 751 method B - After Diesel Fuel (14 days @ 160°F)	615 / 520 [lbs/inch]	5500 / 4650 [N/5 cm]
Tear Strength - Single Rip ASTM D 751 method B, DIN 53356	70 / 70 [lbs]	320 / 320 [N]
Tear Strength - Double Rip ISO 4674	120 / 130 [lbs]	550 / 600 [N]
Tear Strength - Trapez DIN 53363	130 / 140 [lbs]	600 / 650 [N]
Coating Adhesion (HF welding) ASTM D 751 - Dry	50 / 50 [lbs/inch]	450 / 450 [N/5 cm]
Coating Adhesion (HF welding) ASTM D 751 - After Hydrolysis (14 days @ 160°F)	33 / 33 [lbs/inch]	300 / 300 [N/5 cm]
Coating Adhesion (HF welding) ASTM D 751 - After Hydrolysis (42 days @ 160°F)	30 / 30 [lbs/inch]	270 / 270 [N/5 cm]
Coating Adhesion (HF welding) ASTM D 751 - After Diesel fuel (14 days @ 160°F)	28 / 28 [lbs/inch]	250 / 250 [N/5 cm]
Cold Crack / Bend ASTM D 2136	-58°F	-50°C
Puncture Resistance ASTM D 751 (Screwdriver)	250 [lbs]	1150 [N]
Puncture Resistance Fed. Std. 101-2031	440 [lbs]	2000 [N]
Blocking Resistance ASTM D 751	#1	
Surface Resistivity ASTM D 257	10 ⁹ – 10 ¹¹ [Ω / sq]	
Diffusion Rate with JP-8 & Diesel fuel As stated in Mil T 52983 Para. 4.5.2.12	< 0.04 [oz/ft ² /24hr] < 12 × 10 ⁻⁶ [ft ³ /ft ² /24hr]	< 12.2 [gr/m ² /24hr] < 3.7 [cm ³ /m ² /24hr]