



# High Performance Films for Septa Manufacturing

## UNPARALLELED CUSTOMER SERVICE - HIGH PERFORMANCE FILMS FOR SEPTA

TCI manufactures PTFE cast films, ETFE films, and FEP films for use by septa cap lining manufacturers to make the highest quality, low bleed, and FDA-compliant products. These high performance films help to create septa that are easily punctured by a needle and provide minimal contamination risk. These films are chemically inert and have an unlimited shelf life. TCI's high performance fluoropolymer films can be used in the manufacturing of both organic polymer and silicone septa. Unlike skived PTFE, these films are less susceptible to tearing when punctured or cracking when bonded to rubber materials.

As the fluoropolymer experts, TCI offers a vast knowledge of diverse fluoropolymer technologies and superior customer service.

- **Extreme high & low temp capability:**
  - 425°F (-254°C) to 600°F (316°C)
- **High purity, no additives**
- **Color coding and color matching available**
- **Chemical inertness**
- **Bio-compatibility**
- **Anti-stick / low energy surface**
- **FDA compliant**



TCI PTFE Cast Film		TCI Melt Extruded Films	
PTFE LE	CF LE	ETFE	FEP
		ETFE PG	FEP PG

General Properties	Units	Test Method	TCI PTFE Cast Film	TCI Melt Extruded Films
Specific Gravity		ASTM D792	2.15	1.74
Area Yield	ft <sup>2</sup> /lb/mil		90	110
Flammability		UL-94	V-0	V-0
Water Absorption	%		<0.01	<0.03
<b>Mechanical Properties</b>				
Tensile Strength	psi	ASTM D882	4,300	7,000
Elongation at Break	%	ASTM D882	550	300
Tensile Modulus	psi	ASTM D882	55,000	140,000
Initial Tear Strength (2 mil film)	g	ASTM D1004	-	500
Propagation Tear Strength (2 mil film)	g	ASTM D1922	-	250
Folding Endurance (MIT)	cycles	ASTM D2176		>50,000
<b>Thermal Properties</b>				
Continuous Use Temp	°F (°C)	UL-746 B	500 (260)	330 (165)
Melt Point	°F (°C)	ASTM D3418	620 (327)	500 (260)
Coeff. of Lin. Thermal Expansion	in/(in °F)	ASTM D696	5.5x10 <sup>-5</sup>	4x10 <sup>-5</sup>
<b>Product Offering</b>				
Width	inches (mm)		1" - 56" (25 - 1422)	0.5 - 2 mil: 1" - 60" (25-1524); 3 - 10 mil: 1" - 62" (25 - 1575)
Thickness	mils (µm)		2 - 5 (51 - 127)	2 - 5 (51 - 127)
Standard Colors			Red, blue, white	Natural
<b>Surface Treatments Available</b>				
Chemical Etching			N	Y

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