

# PERMALI

TYPICAL FILM PROPERTIES (SEE NOTES, PAGE 4) ASTM TEST	AROMATIC POLYESTER PUR (GENERAL)					FDA (APPROVED)	AROMATIC POLYETHER PUR				
	Method	TF-310	TF-312	TFL-1Z	TFL-1B*	TF800*	TFL-1D	TF-410	TF-420	TFL-1EA*	TFL-1E
Hardness (Shore A)	DIN 53505	93	93	93	93	93	88	82	85 - 86	85	85
Specific Gravity	DIN 53479	1.22	1.22	1.21	1.21	1.2	1.21	1.11	1.24	1.14	1.14
Approx. Yield(M <sup>2</sup> per kg per 25µm)		32	32	32	32	32	32	34	31.6	34	34
Tensile Strength (N/mm <sup>2</sup> )	DIN 53504	47	47	47	47	47	42	31	31	42	42
100% Modulus (N/mm <sup>2</sup> )	DIN 53504	10	10	10	10	10	6	4.9	6	6	6
300% Modulus (N/mm <sup>2</sup> )	DIN 53504	17.4	17.4	17.4	17.4	17.4	8	6.9	7.2	9	9
Elongation (%)	DIN 53504	500	500	500	500	550	650	700	550	650	650
Tear Resistance (KN/m)	DIN 53515	100	100	100	100	100	61	46	40	53	54
Abrasion Loss (mm <sup>3</sup> )	DIN 53516	41	41	41	41	41	70	35	146	34	35
Vicat (method A/50) °C	DIN 53460	74	74	74	74	74	58	63	61	73	72
Natural Appearance		Slight Haze	Slight Haze	Clear	Clear	Clear	Hazy	Clear Haze	Cream	Clear Haze	Clear
Slip Characteristics		Medium	Medium	Medium	Medium	Low	Medium	Medium	Low	Medium	Low
Weldability		Excellent	Excellent	Excellent	Excellent	Fair	Excellent	Excellent	Fair	Excellent	Excellent
Vacuum Formability		Good	Good	Fair	Fair	Good	Good	Good	Good	Excellent	Excellent
UV Stability		Fair	Good	Fair	Fair	Good	Fair	Poor	Fair	Fair	Fair
Hydrolysis resistance								✓	✓	✓	✓
Flame Retardant									✓		
FDA/USDA Food Contact					✓	✓				✓	
Potable Water Contact											
Fungus Resistance								✓	✓	✓	✓
Heat-Activated Adhesive (Porous Substrates)		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Petrochemical Resistance											
AVAILABILITY											
Gauge (microns)		27 - 500	27 - 500	250 - 500	27 - 500	375 - 450	70 - 500	30 - 500	30 - 400	30 - 650	200 - 400
Width(cm)		1.5 - 160	1.5 -160	1.5 - 160	1.5 - 160	1.5 - 160	1.5 - 160	1.5 - 190	1.5 - 160	1.5 - 190	1.5 - 190
Colours 3		All	All	All	See notes	See notes	All	All	All	All	