

Capran® PIR-MT1200 Film



Description

Capran® PIR-MT1200 film from AdvanSix contains 100% post-industrial recycled (PIR) raw materials¹ while providing the same top performance and processability as Capran® MT-1200, its standard, non-recycled counterpart. Capran® PIR-MT1200 film is a 0.47 mil (12 micron) biaxially oriented Nylon 6 film with a metallized barrier coating by controlled vacuum deposition of high-purity aluminum. The metallized film has corona treatment on the reverse side. Capran® PIR-MT1200 film not only maintains its physical properties, but also offers exceptional gas barrier and a pure glossy metallic appearance, making it especially well-suited for packaging and balloon applications.

Properties @ 73°F (22.7°C), 50% RH		Typical Value		Test Method
		English	Metric	
Average Thickness	Target	0.472 mil	12 micron	AdvanSix Method
	Tolerance	+/- 5%	+/- 5%	
Basis Weight		8.55 lbs/ream	13.94 g/sq.m	AdvanSix Method
Yield		50,500 sq.in/lb	71.76 sq.m/kg	AdvanSix Method
Tensile Strength @ Break	MD	34,000 - 45,000 psi	234 - 310 MPa	ASTM D-882
	TD	34,000 - 45,000 psi	234 - 310 MPa	
Elongation @ Break	MD	70 - 105%		ASTM D-882
	TD	70 - 105%		
Modulus, Secant	MD	250,000 - 350,000 psi	1,724 - 2,413 MPa	ASTM D-882
	TD	250,000 - 350,000 psi	1,724 - 2,413 MPa	
Tear Strength, Graves		600 - 1,000 gf/mil		ASTM D-1004
Dimensional Stability	MD	< 3.0%		Hot air at 320°F (160°C), 5 mins
	TD	< 2.5%		
Optical Density		≥ 2.2		Macbeth
Surface Tension	Non-Metallized Side	> 50 dynes/cm		ASTM D-2578
Coefficient of Friction, Kinetic	Film to Film	0.6 - 0.8		ASTM D-1894
	Film to Metal	0.2 - 0.3		
Oxygen Transmission Rate @ 73°F/0% RH, 23°C/0% RH		0.03 - 0.07 cc/100 in ² /day	0.47 - 1.09 cc/m ² /day	ASTM D-3985
Water Vapor Transmission Rate @ 100°F/100% RH, 37.7°C/100% RH		0.17 gm/100 in ² /day	2.64 gm/m ² /day	ASTM F-1249

¹Using an industry-accepted mass balance method, AdvanSix allocates recycled material into 100% PIR Capran® films. PIR grades are certified by an independent third-party organization (SCS Global Services) for recycled content, with annual audits.

The values presented in this data sheet are typical values and are not to be interpreted as product specifications.

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Contact AdvanSix

To learn more about the benefits of Capran® films, visit

[AdvanSix.com/NylonSolutions](https://www.advansix.com/NylonSolutions) or call:

1-844-890-8949 (toll free, U.S./Can.)

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November 2021-3

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