## Capran<sup>®</sup> PIR-1000 Biaxially Oriented Nylon 6 Film

## Description

**Capran® PIR-1000** film from AdvanSix contains 100% post-industrial recycled (PIR) raw materials<sup>1</sup> while providing the same top performance and processability as Capran<sup>®</sup> 1000, its standard, non-recycled counterpart.

Capran<sup>®</sup> PIR-1000 is a 0.39 mil (10 micron) biaxially oriented nylon 6 film. It features a superior balance of properties, including high gas barrier, excellent toughness and puncture resistance, optical clarity, and exceptional flex crack resistance. Capran<sup>®</sup> PIR-1000 nylon 6 film is well-suited for packaging applications requiring optimum protection and performance.

Properties @ 73°F (22.7°C), 50% RH		Typical Value		Test Method
		English Metric		
Average Thickness	Target	0.390 mil	10 micron	AdvanSix Method
	Tolerance	+/- 5%	+/- 5%	
Basis Weight		7.129 lbs/ream	11.60 g/sq.m	AdvanSix Method
Yield		60,600 sq.in/lb	86.2 sq.m/kg	AdvanSix Method
Tensile Strength @ Break	MD	32,000 - 45,000 psi	220 - 310 MPa	ASTM D-882
	TD	32,000 - 45,000 psi	220 - 310 MPa	
Elongation @ Break	MD	80 - 110% 80 - 110%		ASTM D-882
	TD			
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	
Dimensional Stability	MD	< 3.0%		Hot air at 320°F (160°C), 5 mins
	TD	< 2.5%		
Наге		< 2.0%		ASTM D-1003
Surface Tension	Treated Side	> 56 dynes/cm		ASTM D-2578
	Untreated Side	48 - 54 dynes/cm		
Coefficient of Friction, Kinetic	Film to Film	0.5 - 0.9		ASTM D-1894
	Film to Metal	0.2 - 0.3		
Oxygen Transmission Rate @ 77°F/0% RH, 25°C/0% RH		3.8 - 4.8 cc/100 in²/day	60 - 75 cc/m²/day	ASTM D-3985
Water Vapor Transmission Rate @ 100°F/100% RH, 37.7°C/100% RH		25 - 28 gm/100 in²/day	383 - 434 gm/m²/day	ASTM F-1249

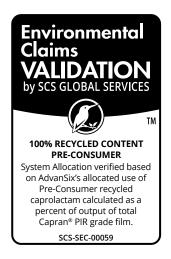
<sup>1</sup>Using an industry-accepted mass balance method, AdvanSix allocates recycled material into 100% PIR Capran® films. PIR grades are certified by an independent third-party organization (SCS Global Services) for recycled content, with annual audits.

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

Page 1 of 2

Although AdvanSix Inc. believes that the information contained herein is accurate and reliable, it is presented without guarantee or responsibility of any kind and does not constitute any representation or warranty of AdvanSix Inc., either expressed or implied. A number of factors may affect the performance of any products used in conjunction with user's materials, such as other raw materials, application, formulation, environmental factors and manufacturing conditions among others, all of which must be taken into account by the user in producing or using the products. The user should not assume that all necessary data for the proper evaluation of these products are contained herein. Information provided herein does not relieve the user from the responsibility of carrying out its own tests and experiments, and the user assumes all risks and liabilities (including, but not limited to, risks relating to results, patent infringement, regulatory compliance and health, safety and environment) related to the use of the products and/or information contained herein.





## Contact AdvanSix

To learn more about the benefits of Capran<sup>®</sup> films, visit AdvanSix.com/NylonSolutions or call: 1-844-890-8949 (toll free, U.S./Can.) +1-973-526-1800 (international) Although AdvanSix Inc. believes that the information contained herein is accurate and reliable, it is presented without guarantee or responsibility of any kind and does not constitute any representation or warranty of AdvanSix Inc., either expressed or implied. A number of factors may affect the performance of any products used in conjunction with user's materials, such as other raw materials, application, formulation, environmental factors and manufacturing conditions among others, all of which must be taken into account by the user in producing or using the products. The user should not assume that all necessary data for the proper evaluation of these products are contained herein. Information provided herein does not relieve the user from the responsibility of carrying out its own tests and experiments, and the user assumes all risks and liabilities (including, but not limited to, risks relating to results, patent infringement, regulatory compliance and health, safety and environment) related to the use of the products and/or information contained herein.



Capran<sup>®</sup> is a registered trademark of AdvanSix Inc. September 2021-2 ©2021 AdvanSix Inc. All rights reserved.



AdvanSix 300 Kimball Drive, Suite 101 Parsippany, NJ 07054