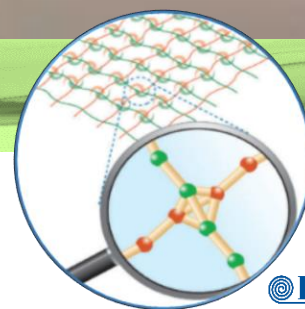


# © Exlfilm fresh™ AF

Anti-Fog Shrink Film



© Exlfilmplus™

## CROSSLINKING TECHNOLOGY

This innovative technique makes Exlfilmplus® Shrink Films one of the toughest and most versatile on the market. This is because the polymer chains are permanently bound into a network, significantly increasing their heat stability and strength. Our films have an inherently greater window of seal and shrink performance at a broader range of temperatures.

- **Prevention of Buildup** on wires and knives during sealing
- **Prevention of Film Burn-Through** in heat tunnels
- **Increased Film Toughness** on the finished package

Exlfilm fresh®AF performance shrink film uses cross-linked technology that provides consistent sealing and shrinking at a wide range of temperature. Exlfilm fresh®AF is engineered with unique anti-fog properties to maintain clarity for product presentation in refrigerator applications.

- Anti-Fog properties ensure clarity and enhance retail product presentation attracting more customers. Ideal for shrink packaging of fresh fruits, vegetables, meat and fresh products.
- Maximum available shrinkage ensures that the film conforms to the most irregularly shaped products, providing superior product presentation.
- Exceptional tensile strength and tear resistance gives added durability and toughness to ensure your product is better protected.
- Complies with standards for direct food contact.

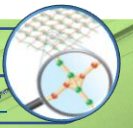


**Fibope**  
PORTUGUESA

ipg<sup>™</sup> intertape polymer group™

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Thickness [µm]	Length [m]						Width [mm]	
	Flat				Centerfolded		Flat	Centerfolded
11	22.500	11.250	7.500	3.750	3.750	1.875	From 200 up to 1200 width increments of 10mm	From 2 x 150 up to 2 x 1.000 width increments of 50mm
12,5	19.800	9.900	6.600	3.300	3.300	1.650		
15	16.500	8.250	5.500	2.750	2.750	1.375		

Cardboard core internal 76,6mm

Other specifications available upon request

Properties	Test Method	Thickness (µm)		
		11	12,5	15
Yield (m <sup>2</sup> /kg)	-	98,8	86,9	72,5
Unit Weight (g/m <sup>2</sup> )	-	10,1	11,5	13,8
Heat Shrinkage (%)	MD	60 °C, air and 5 min MIE 002	2	
	TD		4	
	MD	90 °C, air and 5 min MIE 002	13	
	TD		20	
	MD	120°C, air and 5 min MIE 002	70	
	TD		70	
Tensile Strength (MPa)	MD	ASTM D882	100	
	TD		105	
Elongation at Break (%)	MD		135	
	TD		125	
Haze (%)	ASTM D 1003		5	
Gloss at 20° (%)	ASTM D 2457		105	
Coefficient of friction	ASTM D 1894	0,22		
OTR <sup>(1)</sup> (cm <sup>3</sup> /(m <sup>2</sup> .24h.atm))	ASTM D 3985/ASTM F 1927	10 400		
WVTR <sup>(2)</sup> (g/h.m <sup>2</sup> )	ASTM E 96/E96M	1,4		



Without Anti-Fog



With Anti-Fog

Note: These values are typical and not intended as limiting specifications.

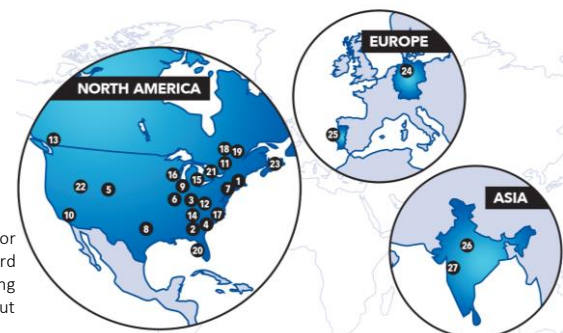
<sup>(1)</sup>15µm, 23°C&dry gas inside/dry gas outside. <sup>(2)</sup> 15µm 50% RH, 38°C.

Storage time should not exceed 12 months. The maximum storage temperature for optimum performance is 35°C.



Fibope comply with the requirements and regulations which state that materials may be used in food contact applications. For more information contact our technical support team.

While we believe them to be reliable the statements and information herein are only for general guidance and are not warrants or guarantees for accuracy and completeness. The use must, by test or otherwise, determine suitability for this purpose. Our standard term and conditions of sale apply exclusively to all orders, and all liability for damages of any kind, including consequential exceeding purchase price is excluded. No one is authorized by us to make oral warranties. We reserve the right to make changes without notice or obligation in our products and publications.



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FIBOPE PORTUGUESA – FILMES BIORIENTADOS, SA is an industrial company dedicated to the production of flexible films for packaging, integrated in the group "Intertape Polymer, Inc.", of Canada. We produce films based on polyolefins, bi-oriented and co-extruded (polyolefin shrink film) in multi-layers. Being a modern unit based on a favorable costs structure and advanced production techniques, it is able to meet the needs of its customers.

FIBOPE practices a continuous policy of quality and development of its capacities to satisfy the requirements of the customers regarding the products and services it offers, being certified since 2001, according to NP EN ISO 9001: 2008 and from 2013 according to the BRC / IOP reference Packaging.

The quality of the products Exfilm®, Exfilmplus® and Exfilmfresh® is constantly tested in our laboratory, equipped with highly sophisticated equipment and qualified technicians, allowing to guarantee quality and consistency.

The main applications are directed to the packaging of food products, cosmetics, paper and display market in general. The concept of total compliance with our customers guides daily activities and differentiates FIBOPE from competitors.