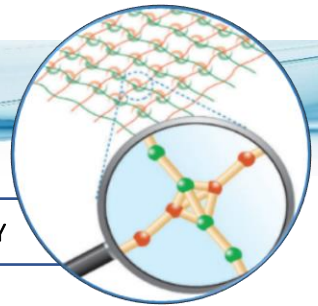


# Exfilmplus™ PL

Crosslinking Shrink Film



## CROSSLINKING TECHNOLOGY

Exfilmplus® PL most durable film, Exfilmplus® is used in the widest variety of applications. Exfilmplus® is ideal for paper goods, food products such as sharp edge products, metal profiles, heavy multipacks, co-packing, MDF boards.

- Uniquely versatile, **Exfilmplus®** operates on all types of equipment and sealing technology, ensuring excellent performance across a wide range of applications.
- Maximum available shrinkage ensures that the film conforms to the most irregular-shaped products, providing superior product presentation.
- Outstanding clarity enhances the retail product presentation to attract more customers.
- Excellent hot slip performance ensures easy package insertion and removal from the master carton.
- 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.

This innovative technique makes Exfilmplus® 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

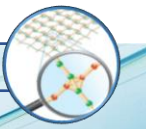


**Fibope**  
PORTUGUESA

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

Estrada da Praia, nº 1087  
4740 – 696 Barqueiros BCL  
Portugal

Tel: +351 253 859 270  
Email: fibope@fibope.pt



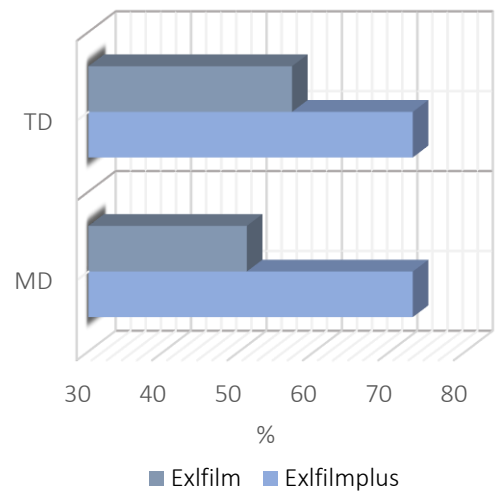
Thickness [µm]	Length [m]						Width [mm]	
	Flat			Centerfolded			Flat	Centerfolded
15	16.500	8.250	5.500	2.750	2.750	1.375	From 200 up to 1200 width increments of 10mm	From 2 x 150 up to 2 x 1.000 width increments of 50mm
19	12.900	6.450	4.300	2.150	2.150	1.075		
25	9.000	4.500	3.000	1.500	1.500	750		

Cardboard core internal 76,6mm  
Other specifications available upon request

Properties		Test Method	Thickness (µm)		
			15	19	25
Yield (m <sup>2</sup> /kg)		-	72,5	57,2	43,5
Unit Weight (g/m <sup>2</sup> )		-	13,8	17,5	22,9
Heat Shrinkage (%)	MD	60 °C, air and 5 min MIE 002	2		
	TD		4		
	MD	90 °C, air and 5 min MIE 002	10		
	TD		20		
	MD	120°C, air and 5 min MIE 002	73		
	TD		73		
Tensile Strength (MPa)	MD	ASTM D882	115	115	100
	TD		120	120	100
Elongation at Break (%)	MD		130	140	160
	TD		120	130	140
Haze (%)		ASTM D 1003	3,0	3,3	4
Gloss at 20° (%)		ASTM D 2457	130	125	120
Coefficient of friction		ASTM D 1894	0,15		
OTR <sup>(1)</sup> (cm <sup>3</sup> /(m <sup>2</sup> .24h.atm))		ASTM D 3985/ASTM F 1927	10 800		
WVTR <sup>(2)</sup> (g /h.m <sup>2</sup> )		ASTM E 96/E96M	0,64		

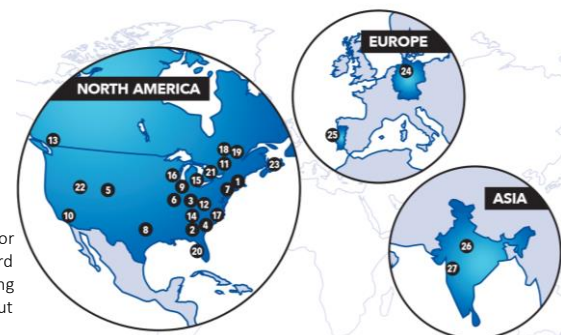
Note: These values are typical and not intended as limiting specifications.  
<sup>(1)</sup>15µm, 23°C&dry gas inside/dry gas outside. <sup>(2)</sup> 15µm, 50% RH, 38°C.  
Storage time should not exceed 3 months. The maximum storage temperature for optimum performance is 35°C.

Shrink Rate



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 warranties 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.



Estrada da Praia, nº 1087  
4740 – 696 Barqueiros BCL  
Portugal  
Tel.: +351 253 859 270  
Email: fibope@fibope.pt

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.