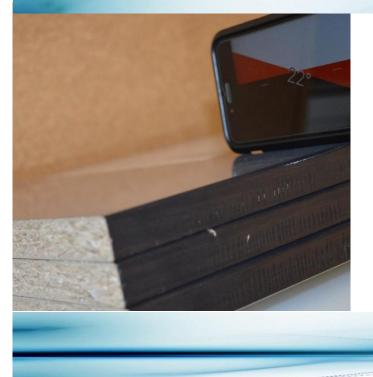


High Gauge Shrink Film





CROSSLINKING TECHNOLOGY

Exlfilmplus[®]HG is a high gauge, crosslinked high performance film. This strong yet responsive shrink film is designed to contain and resist tearing while providing excellent clarity and production processing capability. Exlfilmplus[®]HG was developed especially for packaging of heavy and bulky items such as furniture items and in some cases replace expensive corrugated cartons.

- Excellent optics.
- High speed performance.
- Consistently stronger static seals.
- Exceptional tensile strength and tear resistance.
- High shrink ratio.
- Complies with standards for direct food contact.

This innovative technique makes Exlfilm*plus*[®] 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





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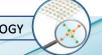
Tel: +351 253 859 270 Email: fibope@fibope.pt

Edition 01

Exlfilmplus HG

High Gauge Shrink Film

CROSSLINKING TECHNOLOGY

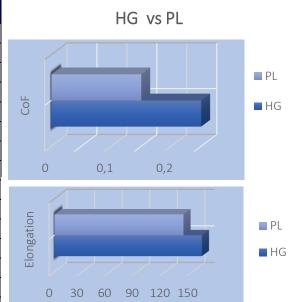


| Thickness [µm] | Length [m] | | | | Width [mm] | | |
|----------------|------------|-------|--------------|-------|--------------------|------------------------------------|--|
| | Flat | | Centerfolded | | Flat | Centerfolded | |
| 19 | 4.300 | 2.150 | 2.150 | 1.075 | From 200 up to | From 2 x 150 up to | |
| 25 | 3.000 | 1.500 | 1.500 | 750 | 1200 width | 2 x 1.000 width increments of 50mm | |
| 38 | 2.160 | 1.080 | 1.080 | 540 | increments of 10mm | | |

Cardboard core internal 76,6mm

Other specifications available upon request

| | | T (1) (1) (1) | Thickness (µm) | | | |
|--------------------------|-------|-------------------------------|----------------|------|------|--|
| Properties | | Test Method | 19 | 25 | 38 | |
| Yield (m ² /k | g) | - | 57,2 | 43,5 | 28,6 | |
| Unit Weight (g | ;/m²) | - | 17,5 | 22,9 | 34,9 | |
| Heat Shrinkage (%) | MD | 60 °C, air, 5 min | 2 | | | |
| | TD | MIE 002 | 4 | | | |
| | MD | 90 °C, air, 5 min | 11 | | | |
| | TD | MIE 002 | 20 | | | |
| | MD | 120 °C, air, 5 min MIE 002 | 75 | 70 | 68 | |
| | TD | | 75 | 70 | 68 | |
| Tensile Strength | MD | | 115 | 100 | 90 | |
| (MPa) | TD | ASTM D882 | 120 | 100 | 90 | |
| Elongation at | MD | ASTIVI DOOZ | 135 | 160 | 165 | |
| Break (%) | TD | | 125 | 140 | 145 | |
| Haze (%) |) | ASTM D 1003 | 3,5 | 4,0 | 4,5 | |
| Gloss at 20° | (%) | ASTM D 2457 | 130 120 | | 20 | |
| Coefficient of friction | | ASTM D 1894 | 0,25 | | | |



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

Storage time should not exceed 3 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.





intertape polymer group

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 Exl*film*[®], Exlfilm*plus*[®] and Exlfilm*fresh*[®] 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.