

Stretch Film



BSH & BHH line The heavy duty cast film

Performance driven

We design, we produce and we deliver blown and cast films, with outstanding mechanical properties for maximum performance on your production line.

Load securement

No compromises on safety and stability. Our field expertise and technical knowledge is at your service for the best film and machine combination.

Cost efficient

Always looking for the best cost versus efficiency results. Our holistic step by step validation process is key to maximizing pallet stability at the best cost.

100% recyclable

Our stretch films are 100% recyclable. We invest in new production methods to become more sustainable and improve our carbon footprint.

BSH & BHH line

The heavy duty cast film



Introducing BSH & BHH, a cast alternative to blown film for heavy duty, irregular shaped and difficult pallets.

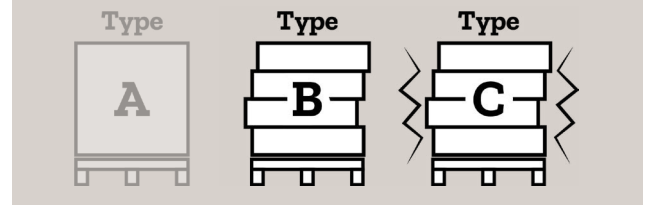
BSH & BHH Line Benefits

- Superior toughness / puncture performance
- One side cling / one side slip package
- Optimum elongation with similar load force to blown film
- Good clarity and optics
- Silent unwind

Applications

- Up to 270% PPS stretch (1m => 3.7 m)
- Type B and C loads
- Unstable, heavily sensitive loads
- Easy loading / unloading of products

Pallet Load Types



Film Tolerances

Thickness Tolerance	+/- 10%
Core Protrusion	6 ± 3 mm
Tolerances on weight	± 5 %
On Reel length	± 5 %
On Film width	± 4 mm

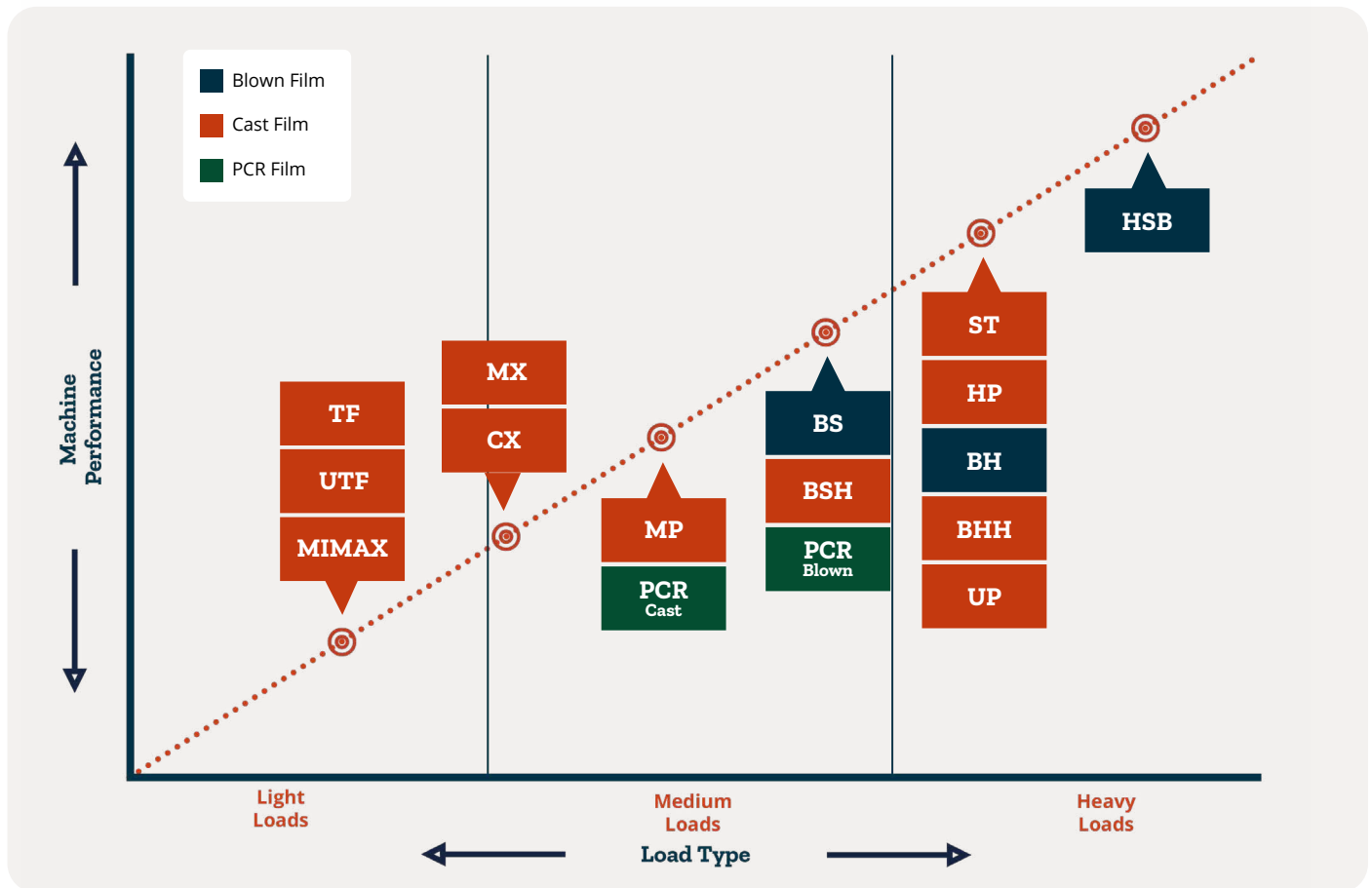
Reel & Packaging Specifications

Product Reference	15BSH501	17BSH501	19BSH501	22BHH501
Thickness (µ)	15	17	19	22 (BHH)
Film width (mm)	500	500	500	500
Reel length (m)	2000	2300	2110	1830
Recommended Pre-Stretch	+/- 230%	+/- 250%	+/- 270%	+/- 270%
Cling	Outside	Outside	Outside	Outside
Core weight (kg)	1.04	1.04	1.04	1.04
Reel weight (kg GFN)	14.765	18.928	19.381	19.459
Pallet size	800 x 1200	800 x 1200	800 x 1200	800 x 1200
Outside diameter (mm)	250	250	250	250
Inside core diameter (mm)	≥ 76	≥ 76	≥ 76	≥ 76
Palletization/nr of layers	2	2	2	2
Nr of reels/pallet	28	28	28	28
Pallet gross weight (kg)	532	530	543	545
Pallet net weight (kg)	494	501	514	516

Please contact us for more information or visit
www.signode.com

Product Line Overview

The right film, for the right application



Reasons why our Stretch Film product range are the key choice for consumers

Quality & Performance

All our stretch films are designed, produced and delivered with the highest grade of quality control. We make no compromises on safety, traceability and performance. Our quality incidence report was < 0.1% in 2020. We are BRC / IOP, ISO 9001,14001 and 50001 certified.

Consistency

We select purposefully, top quality raw materials, sourced in Europe and carefully controlled to perfect our recipes and make your application work flawlessly. As a producer we understand the absolute necessity to keep your lines running with no incident, that is why our product range is designed to bring the most consistent results depending of the mechanical properties of the film.

Producer Expertise

40+ years experience as the pioneer stretch film producer in Europe. We produce both Cast and Blown films on our 3 production facilities located in Belgium and Ireland.

Research & Development

We are consistently improving our products in order to find better solutions for our customers, we also commit our focus to sustainability, waste reduction and carbon footprint.

Technical Consultancy & Holistic Approach

We deliver to our customers superior technical support and expertise. Our film specialists provide ad-hoc and on site audits to perfectly match the right film with the right machine and application. We do not only rely on weight or cost, we analyze your whole production and supply chain process, from primary to tertiary packaging and automated storage to provide you the best solution, both in stability and economical performance.

Our laboratory and test centers – unique in Europe – are powerful tools to achieve the best-in-class performance according to your needs.

Sustainability

How we are making a difference

Stretch film is fully Recyclable

Stretch film is made with Linear Low Density PolyEthylene (LLDPE) which is 100% recyclable and can be reused for recycled stretch film or numerous applications depending on the purity of the collected material.



Produced locally in Belgium & Ireland

The raw material that we use for our films is carefully selected and sourced in Europe. Mass balanced, bio sourced and PIR / PCR raw materials in order to reduce environmental impact are our top priorities, fully aligned with our twentyby30 sustainability program.



Technical Consultancy to our Customers

Being closer to our customers and contributing to optimal consumptions is one of our commitments. The best stretch film is the one you don't waste by being overpacked.



Energy Management

More than 50% of 2021 Capital Investments are Sustainability related projects. As an example, 3600m² of solar panels to be installed in 2021 for our Virton (Belgium) plant, 40% of green energy forecasted at the end of 2021.



Internal Recyclability

Our Target is to reuse 100% of internal scrap by 2023 latest. Today our Gorey factory in Ireland is a leader in this commitment with almost 100% of the internal scrap reprocessed and reused in house.



Quality Performance

We make no compromises on quality with an average return rate <0.1% in 2020. This prevents multiple trips, unnecessary resources and carbon footprint increase.



**WE'LL ALWAYS
PROTECT IT.**

Technology & Expertise

Premium packaging for your pallet



POP Center: Our packaging test and optimization program in Europe

Unrivaled integrated test center with 40+ years of producer knowledge

■ Stability Expertise

As a stretch film producer, we pioneered the development of the first integrated stability test center in Europe. Our POP Center (Pallet Optimization Program), located in VIRTON (Belgium) and our Test Center in SØNDERBORG (Denmark) provides a holistic study of the load you want us to improve.

■ Test Protocol

From primary packaging to the wrapping cycle, we analyze the stability level of your pallets with comprehensive test protocol including...

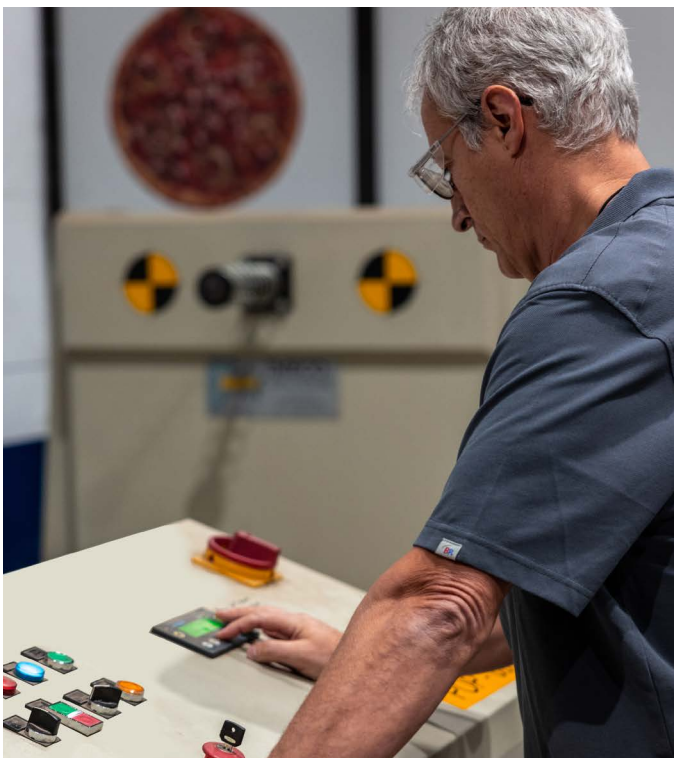
- Acceleration table (G-Force tool)
- Vibrations platform
- Tilt table
- Water resistance test

■ Data Analysis

Once we have a reliable and data driven overview of your current stability level, our dedicated engineers start to perform a series of tests with our films and our Octopus wrapper machine, to provide you with a customised, best in class solution, both in stability and economical performance.

■ From Test Centre to your Production Line

Our POP Centre is today an ideal and efficient tool and perfect solution to design optimized packaging according to your requirements.



Dedicated Engineers



G-Force Tool in action

Technology & Expertise

Premium packaging for your pallet



Stability tool: independent lab certified transportable unit

The best way to check and improve pallet stability

■ Pallet Stability Check

Our Stability tool is a transportable solution designed by an independent laboratory in Belgium. This mobile tool records in real time the forces, both in position and intensity, applied by the film on your pallet during the wrapping cycle. It allows us to check accurately on your own production line the most important indicators regarding the stability of your pallet.

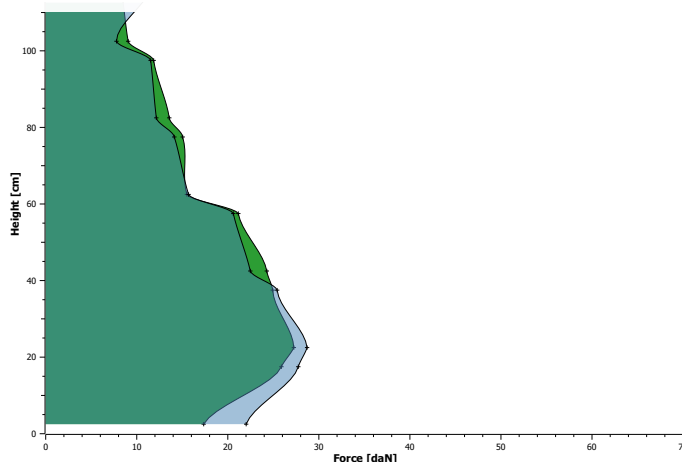
■ Real Time Feedback

Weak points or overpacked parts of your load are instantly spotted by the sensors on our device and transmitted wirelessly to our dedicated software for analysis and comparison. Reliable data sent by the Stability tool allows Ad-Hoc stability studies, in depth optimizations to solve or upgrade according to your needs.

■ Replicability and Accuracy

The Stability tool is an ideal solution to ensure optimal pallet loading, especially when combined with the POP Center, to duplicate results from one machine to another.

Real Time Force Diagram recorded with the stability tool



Real time data collection, on pallet during wrapping cycle



Sensors on edge of pallet

Additional Products

Available on request



Interested in more specific dimensions or items?

■ Film width

Find the correct width for your needs, with choices between: 250mm, 300mm, 500mm, 750mm and 1000mm on certain product ranges.

■ Coloured films

We offer specific white and grey film product ranges, which help to prevent light exposure and increase your product confidentiality during transport.

■ Narrow films

Our Narolite range is specifically dedicated to banding applications, in both logistic and industry.

■ Macro-perforated films

Our Climawrap range is dedicated to industrial applications, where breathability is mandatory to deter excess moisture & temperature regulation.

■ Top Sheets

We produce 50 μ top sheets with blown extrusion for superior toughness and load protection, exclusively for automated lines.

■ UV stabilized films

We produce UV stabilized stretch films in transparent grey or white for external storage

Please contact us for more information or visit www.signode.com