



Industrial stretch films

GUIDE

Optimize pallet stability,
operational performance,
and material consumption

2026-2027



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INTRODUCTION

The choice of stretch film has a real impact on pallet stability, operational efficiency, and material consumption. When properly selected and applied, it helps secure loads while reducing plastic usage, leading to both packaging savings and a lower environmental footprint.

By considering your load characteristics, application methods, working conditions, and processing volumes, this guide helps you make more informed choices, aligned with your operational realities, performance goals, and cost constraints.



STRETCH FILM AS A PERFORMANCE DRIVER

More than just a consumable, stretch film has a direct impact on:



Pallet stability and transport safety



Cost (materials + labor)



Operator safety and health



Environmental impact of operations

The right choice depends not only on the type of film but also on aligning the product, packaging method, and processing volume.

UNDERSTANDING COMMON PALLETIZING MISTAKES



Excessive wrapping "for added safety"

Consequences:

- Excess film consumption without real gains in stability
- Higher costs per pallet
- Increased environmental impact



Improper tension application

Consequences:

- Uneven load retention
- Risk of product shifting during transport



Film not suited to the actual load weight

Consequences:

- Tears or perforations in the film
- Unstable or poorly secured pallets
- Repackaging and time losses



More film used to compensate for an unstable pallet

Consequences:

- Unnecessary increase in the number of film wraps
- Longer packaging times
- Higher costs without addressing the underlying issue



ADAPTING STRETCH FILM TO YOUR OPERATIONAL REALITY

Your packaging volume

- Occasional or seasonal
- Regular, medium-volume
- High-volume, repetitive operations

Your operational constraints

- Extended manual application
- Staff turnover
- Objectives for reducing musculoskeletal disorders (MSDs)

Your equipment

- Semi-automatic or fully automated system
- Type of system used (orbital/rotary arm/turntable, etc.)
- Machine capacity and pre-stretch settings

Your environment

- Ambient or cold temperature
- Indoor or outdoor storage
- Long-distance transport

CHOOSING THE RIGHT STRETCH FILM:

Questions to consider

These questions help define the right parameters that directly influence the choice of film thickness, type, and application method.

- ? What is the size (height) and weight of your pallet?
- ? What is the nature of the product (fragile, heavy, bulky, etc.)?
- ? What type of pallet do you use (wood, plastic, or specific dimensions)?
- ? How many pallets do you package per week, month, or year?
- ? Are you interested in an eco-designed solution?
- ? Do you already know which type of stretch film (cast or blown)?
- ? Do you need pre-stretched film?
- ? Do you use or do you need a dispenser?

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THE PRODUCT BEING PACKAGED: A KEY DETERMINING FACTOR

The choice of stretch film depends first and foremost on the load being packaged. The weight, dimensions, and configuration of the pallet directly influence the film's required performance. A uniform load often allows for the use of thinner film, while irregular pallets or fragile products require greater resistance and appropriate tension to ensure stability without risking product damage.



For more information,
contact our experts



Load A – Uniform pallet

Goods stacked uniformly, with no overhang or irregularities.

The uniform surface allows for proper tension distribution. A film that is too resistant provides no real benefit and may even apply unnecessary pressure to the load.

Load B – Semi-regular pallet

Presence of moderate overhangs or protrusions (up to approximately 3 inches).

The irregularities increase the risk of tearing. The film must be strong enough to conform to the load without breaking while maintaining controlled tension.

Load C – Irregular pallet

Significant protrusions, uneven shapes, or unstable loads (over 3 inches).

Stability depends as much on the film's strength as on its ability to keep the load in place despite high-tension points. An inadequate film increases the risk of breakage and product shifting during transport.

THE DIFFERENT TYPES OF STRETCH FILMS

With the wide range of stretch films available, choosing the right one can quickly become complex. Your operational realities should guide your decisions.

1. Application method

The first criterion to define is how the film will be applied.



Manual application

- Volumes are limited
- Pallets are lightweight and uniform
- Investment in equipment is not a priority

Perfect for small volumes or occasional operations, this application is easy to use and requires no equipment.



Machine application

- Volumes are high
- Stability must be consistent
- Material reduction objectives are a priority

It is used with a stretch wrapper and ensures consistent tension.

2. Thickness (gauge)

- The film's thickness, measured in microns or gauge, determines its strength.
- A thicker film offers better protection but may be less flexible.

To convert microns to gauge, use this quick calculation:

GAUGE = MICRONS X 4

3. Major types of stretch film and their uses

Conventional, high-performance, and pre-stretched: what are the differences in practice?



For more information, contact our experts

High-performance film

- Thinner, using less plastic material
- Stretch capacity of 250–300%
- Requires a compatible machine (capable of stretching the film)
- Provides load retention memory to protect products
- Suitable for lightweight and uniform loads
- More cost-effective

Conventional film

- Greater thickness
- Limited stretch capacity
- Suited for heavy and irregular loads (Type C)
- More resistant to tearing (compared to high-performance film)

Pre-stretched film

- Manual application
- Pre-stretched at the factory, making it lighter and more ergonomic for operators
- Easy to apply and safer (operators can move forward while wrapping)
- Reduced risk of tearing and lower material waste



Do not confuse tension and pre-stretching. Tension refers to the force applied when wrapping the film around the pallet. Pre-stretching, on the other hand, involves stretching the film before application to activate its elasticity and reduce material consumption.

4. Cast or Blown: which to choose

Cast and blown films do not address the same constraints. The challenge is identifying which one best suits your loads and operational environment.

Cast film

- Clear and transparent finish, ideal for barcode scanning and quick product identification
- Quieter unwind, improving workplace comfort
- Good strength and versatility for everyday use

Blown film

- Milkier appearance and noisier unwind compared to cast film
- Superior resistance to punctures and impacts
- Ideal for demanding conditions and cold environments (e.g., refrigerated warehouses)

5. One Side Cling (OSC) or Two Side Cling?

The choice depends less on the film itself than on what happens after packaging: storage, handling, and transportation.

One Side Cling (OSC) film

Characteristics:

- The inner side adheres to the pallet and the film layers
- The outer side is non-adhesive
- Reduces the risk of pallets sticking together
- Easier handling for operators
- Better load retention performance and technology

When to use it:

- Pallets stored or transported side by side
- Applications where avoiding snagging and tearing is important

Two-Side Cling film

Characteristics:

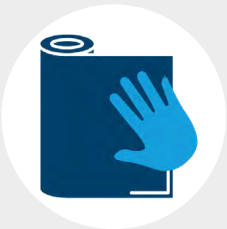
- Both sides of the film are adhesive

When to use it:

- When seeking a balanced performance-to-cost ratio

Drawback:

- Pallets may stick together often provides less retention strength than OSC film



MANUAL APPLICATION

Appropriate when:

- Volumes are limited
- Pallets are lightweight and uniform
- Investment in equipment is not a priority

“The rolls are shorter and smaller than machine film rolls so operators can handle them easily. For standard films, a tension of 15% to 25% should be applied to properly stretch the film.”

Conventional manual stretch films

CODE	DESCRIPTION	THICKNESS IN GAUGE	TYPE	QUANTITY
5540165	13.3"X1476'	65G	Cast	4 rolls per case
5540175	13.3"X1312'	75G	Cast	4 rolls per case
5640311	15"X1500'	79G	Blown	4 rolls per case
5640312	18"X1500'	79G	Blown	4 rolls per case
5640316	Carrousel 16"X1450'	51G	Blown	4 rolls per case
5640325	17"X1476'	75G	Blown	4 rolls per case
5640328	Terra 13"X1476'	65G	Blown	4 rolls per case
5640329	Terra 17"X1476'	65G	Blown	4 rolls per case
5640345	Max Wrap 14"X1500'	80G	Cast	4 rolls per case
5640346	Max Wrap 17.7"X1500'	80G	Cast	4 rolls per case
5640347	Max Wrap 14"X1500'	90G	Cast	4 rolls per case
5640348	Max Wrap 17.7"X1500'	90G	Cast	4 rolls per case
5641060	13"X1476'	65G	Cast	4 rolls per case
5641100	500MMX1000' Extended core	70G	Blown	4 rolls per case
5641200	500MMX1000' Extended core	80G	Blown	4 rolls per case
5640320	15"x1500' black	80G	Blown	4 rolls per case



High-performance manual stretch films

CODE	DESCRIPTION	THICKNESS IN GAUGE	TYPE	QUANTITY
5545912	Carrousel 65 12"X1476'	equivalent 65G	Cast-OSC	4 rolls per case
5545914	Carrousel 65 14"X1476'	equivalent 65G	Cast-OSC	4 rolls per case
5545916	Carrousel 65 16"X1476'	equivalent 65G	Cast-OSC	4 rolls per case
5640147	12.8"X1476'	47G	Cast-OSC	4 rolls per case
5640148	16"X1476'	47G	Cast-OSC	4 rolls per case
5640149	18"X1476'	47G	Cast-OSC	4 rolls per case
5640240	Fortitude 14.5"X1476'	28G	Cast-OSC	4 rolls per case
5640330	Sustain 360 12.2"X1476'	47G	Cast-OSC	4 rolls per case
 5640331	Terra 13"X1476' 30% PCR	47G	Cast-OSC	4 rolls per case
 5640332	Terra 15.75"X1476' 30% PCR	47G	Cast-OSC	4 rolls per case
5640337	Carrousel 90 17.5"X1476'	equivalent 90G	Cast-OSC	4 rolls per case



Pre-stretched manual stretch films

CODE	DESCRIPTION	THICKNESS IN GAUGE OU MICRONS	TYPE	QUANTITY
5641071	15.5"X2000' Bulk	29G	Blown	1 roll
5641072	17.5"X2000'	-	Blown	1 roll
5641080	Carrousel PS3 385MMX450M	-	Blown	4 rolls per case
5641081	Carrousel PS2 385MMX450M	-	Blown	4 rolls per case
5641082	Carrousel PS1 385MMX450M	-	Blown	4 rolls per case
5641083	318MMx450M	8.4 Microns	Blown	4 rolls per case
5663092	Vmaxx Loop 381MMX450M bulk format	-	Cast-OSC	1 roll
 5663095	Terra PST1 381MMX450M 30% PCR	-	Cast-OSC	4 rolls per case
 5663096	Terra PST1 381MMX600M 30% PCR	-	Cast-OSC	4 rolls per case
 5663097	Terra PST2 381MMx450M 30% PCR	-	Cast-OSC	1 roll



Pre-stretched manual stretch films

CODE	DESCRIPTION	THICKNESS IN GAUGE OR MICRONS	TYPE	QUANTITY
5663099	Vmaxx standard 381MMX450M bulk format	-	Cast-OSC	168 rolls per pallet
5663100	Vmaxx light 305MMX450M bulk format	-	Cast-OSC	280 rolls per pallet
5663101	Vmaxx ultra-light 305MMX450M bulk format	-	Cast-OSC	168 rolls per pallet
5663104	Vmaxx 457MMX450M bulk format	-	Cast-OSC	4 rolls per case
5663106	Vmaxx light box 438MMX450M	-	Cast-OSC	4 rolls per case
5663107	Vmaxx 305MMX450M	-	Cast-OSC	4 rolls per case
5663108	Vmaxx 381MMX450M	-	Cast-OSC	4 rolls per case



Manual dispensers



5540006
Hand film dispenser with plastic handle for 3" to 5" film



9520341
Tensioner reel for 3" to 5" film



9520343
Hand film holder with 2 blue handles



9520350
Hand film dispenser for 13,5" to 18" film

LEGEND

 Eco-designed product: made from recycled materials



MACHINE APPLICATION

- Appropriate when:
- Volumes are high
 - Stability must be consistent
 - Material reduction objectives are a priority



Designed for high-throughput operations. It is used with a stretch wrapper and ensures consistent tension.



Conventional stretch films

CODE	DESCRIPTION	THICKNESS IN GAUGE	TYPE	QUANTITY
5545623	Carrousel 500MMX6000'	70G	Cast	1 roll
5545624	Carrousel 500MMX5000'	75G	Cast	1 roll
5662313	500MMX5000'	55G	Cast	50 rolls per palet
5662319	500MMX6000' (Individually wrapped)	80G	Cast	1 roll
5662320	20"X6000'	80G	Cast	1 roll
5662321	500MMX6000'	80G	Cast	1 roll
5662331	Carrousel 500MMX4000'	115G	Cast	1 roll
5662501	Carrousel 750MMX6000'	70G	Cast-OSC	1 roll
5663018	Stretch Max 10"X6000'	80G	Cast-OSC	1 roll
5663026	Flush Core 10"X6000'	80G	Cast	1 roll
5663031	10"X4000'	120G	Cast-OSC	1 roll
5663260	Carrousel 500MMX7500'	60G	Cast-OSC	1 roll
5663265	Carrousel 500MMX6500'	65G	Cast-OSC	1 roll
5663271	Carrousel 500MMX6500'	70G	Cast-OSC	1 roll
5663280	Carrousel 500MMX6000'	80G	Cast-OSC	1 roll



CODE	DESCRIPTION	THICKNESS IN GAUGE	TYPE	QUANTITY
5663281	Carrousel 750MMX6000'	80G	Cast-OSC	1 roll
5663300	Carrousel 500MMX4500'	100G	Cast-OSC	1 roll
5665003	6"X3900' core 1.5	90G	Cast-OSC	5 rolls per palet
5665004	4"X3900' core 1.5	90G	Blown	10 rolls per palet
8763341	Stretch Max 500MMX7500'	60G	Cast-OSC	1 roll
5663180	Max Cast 500MMX5000' noire	80G	Cast	1 roll



Our selection of high-performance stretch films

When a stretch wrapper applies high levels of stretch to the film, it is essential to use a high-performance film. A standard film stretched to 200% or more can lose its physical properties, which compromises its load retention capacity. The film may break during stretching, affecting both pallet stability and the efficiency of your operations.

CODE	DESCRIPTION	THICKNESS IN GAUGE	TYPE	QUANTITY
5545620	20"X7500'	60G	Cast-OSC	1 roll
5545627	Carrousel 70 500MMX6000'	equivalent 70G	Cast-OSC	1 roll
5545631	20"X5500'	80G	Cast-OSC	1 roll
5545715	20"X4250'	105G	Cast-OSC	1 roll
5661250	Maxplus 2 20"X9000'	50G	Cast-OSC	1 roll
5661255	Maxplus 2 20"X8000'	55G	Cast-OSC	1 roll
5661280	Maxplus 2 20"X6000'	80G	Cast-OSC	1 roll
5661324	Revolution 500MMX9000'	51G	Cast-OSC	1 roll
5661326	Revolution 500MMX7500'	57G	Cast-OSC	1 roll
5661330	Revolution 500MMX7250'	63G	Cast-OSC	1 roll
5661331	Revolution 750MMX7250'	63G	Cast-OSC	1 roll
5661335	Revolution 20"X5000'	90G	Cast-OSC	1 roll
5661442	Stratos 20"X11 000'	42G	Cast-OSC	1 roll
5661443	Stratos 30"X11 000'	42G	Cast-OSC	1 roll
5661451	Stratos 20"X9000'	51G	Cast-OSC	1 roll
5661480	Stratos 20"X5500'	80G	Cast-OSC	1 roll
5662476	Carrousel 500MMX7000'	65G	Cast-OSC	1 roll
5662477	500MMX3500' UV 12 mois	120G	UV - Cast - OSC	1 roll
5662483	Carrousel 500MMX8000'	55G	Cast-OSC	1 roll
5662496	Carrousel 500MMX9000'	50G	Cast-OSC	1 roll

CODE	DESCRIPTION	THICKNESS IN GAUGE OU MICRONS	TYPE	QUANTITY
5662498	Carrousel 750MMX9000'	50G	Cast-OSC	1 roll
5662500	750MMX4500'	100G	Cast-OSC	1 roll
5662503	Carrousel 750MMX4000'	120G	Cast-OSC	1 roll
5662605	Vortex 500MMX1430M	25.4 Microns	Blown - OSC	1 roll
5662606	Vortex 500MMX1830M	20.5 Microns	Blown - OSC	1 roll
5663109	Evolve 500MMX10000'	41G	Cast-OSC	1 roll
5663112	Evolve 500MMX8000'	50G	Cast-OSC	1 roll
5663113	Evolve 500MMX8000' (Individually wrapped)	50G	Cast-OSC	1 roll
5663114	Evolve 500MMX9000'	45G	Cast-OSC	1 roll
5663190	Platinum Max 500MMX5500'	61G	Cast-OSC	1 roll
5663302	Axis 750MMX9000'	50G	Cast-OSC	1 roll
5663322	Terra 500MMX9000' 30% PCR	49G	Cast-OSC	1 roll
5663323	Terra 750MMX9000' 30% PCR	49G	Cast-OSC	1 roll
5663324	Terra 500MMX7500' 30% PCR	59G	Cast-OSC	1 roll
5663325	Axis Loop 30 500MMX6890' 30% PCR	67G	Cast-OSC	1 roll
5663327	Axis 500MMX9000'	50G	Cast-OSC	1 roll
5663329	Axis 750MMX11 000'	41G	Cast-OSC	1 roll
5663330	Carrousel 50 750MMX12500'	equivalent 50G	Cast-OSC	1 roll
5663331	Carrousel 50 500MMX12500'	equivalent 50G	Cast-OSC	1 roll
5663332	Axis 500MMX10 000'	45G	Cast-OSC	1 roll
5663333	Axis 500MMX6000'	80G	Cast-OSC	1 roll
5663335	Axis 750MMX6000'	80G	Cast-OSC	1 roll
5663336	Axis 750MMX10 000'	45G	Cast-OSC	1 roll
5663338	Axis 500MMX11000'	41G	Cast-OSC	1 roll
5663339	Platinum Max 500MMX9000'	39G	Cast-OSC	1 roll
5663340	Platinum Max 750MMX9000'	39G	Cast-OSC	1 roll
5663344	Platinum Max 500MMX6000'	55G	Cast-OSC	1 roll
5663346	Platinum Max 500MMX10000'	44G	Cast-OSC	1 roll

LÉGENDE

 Eco-designed product: made from recycled materials



For more information,
contact our experts

EQUIPMENT

Why choose a stretch wrapper?

- Thanks to controlled pre-stretch, a stretch wrapper allows you to use significantly less film while maintaining the same level of protection.
- Mechanical pre-stretch fully activates the film's load retention capacity. As the film attempts to return to its original shape, it applies constant and uniform tension around the pallet, ensuring far greater stability than manual wrapping, consistently and repeatably.

TURNTABLE

Turntable stretch wrappers are among the most common solutions for packaging standard pallets.



AUTOMATIC TURNTABLE SYSTEM

Rotary arm stretch wrappers allow you to wrap loads that cannot rotate on their own.



ROTARY ARM

Rotary arm stretch wrappers make it possible to wrap loads that cannot be rotated on a turntable.



HORIZONTAL ORBITAL

Orbital stretch wrappers are designed to wrap long or irregularly shaped products that cannot be palletized conventionally.



MOBILE – ROBOTS

Packaging robots offer maximum flexibility when pallets are difficult to move.



FUNCTIONAL OPTIONS

Specific options are available to adapt to certain operational needs.

- Opaque or colored: confidentiality, logistics differentiation
- Printed: branding and tamper deterrence
- UV: prolonged outdoor storage
- Perforated or mesh: product ventilation



Contact us for your specific requirements!

By phone at 514 875-2025
or at 1 800 361-4206

By email: industriel@carrousel.ca

SUSTAINABILITY: reducing without compromising

Reducing the amount of material used does not mean reducing protection.

Key levers to consider:

- High-performance films
- Films made with recycled materials (post-consumer content)
- Controlled pre-stretch
- Investing in high-performance machines to standardize your processes

CARROU-CYCLE

Our stretch-film recovery program

Together, we're keeping tons of plastic out of landfills. Driven by our commitment for sustainability, Carrousel developed Carrou-Cycle, an innovative program that gives used stretch film a second life through circular-economy recycling.

How it works:



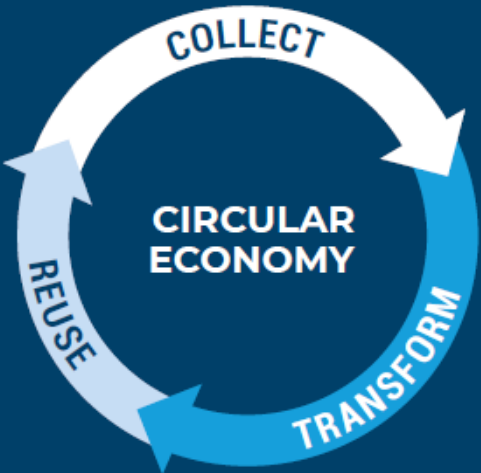
1. During deliveries, Carrousel drivers collect used stretch film.



2. On the way to our supplier Polykar, the used film is transported for processing, optimizing routes and reducing our carbon footprint.



6. Once used, they can be reused or recycled through local collection programs.



3. The film is shredded, cleaned and converted into recycled resin pellets.



5. These bags are distributed again to Carrousel clients.



4. The pellets are used to produce new plastic products, such as e-commerce shipping bags.

Impact to date (as of September 2025) :

187,000 lbs
of film recovered

9.7 million water bottles
diverted from landfill

CONCLUSION:

Stretch film becomes a strategic tool when it is properly selected and used. This guide is designed to help you step back, review your current practices, and identify concrete opportunities for optimization.



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