

Rollbag® Pre-Opened Bags on a Roll and Poly Tubing Guide

Rollbag® Specifications & Materials

pacmachinery.com

PAC Machinery
Bags and Materials

Contents

- 1** Custom Rollbag overview
- 2** more Sustainable options
- 3** Custom Tubing overview
- 4–5** Custom Bag Features
- 6** Film Material Specs
- 7** Film Materials & Additives
- 8** Film Material Structure
- 9** Rollbag Tolerance Guide
- 10** Rollbag Roll Packing Configuration
- 11** Custom Printing & Safety
- 12** Artwork Specifications
- 13** Stock Rollbags
- 14** Thermal Transfer Ribbon
- 15** Thermal Transfer Ribbon Specs
- 16–18** Glossary Bag Film Terms
- 19** Glossary General Terms
- 20** Rollbag Baggers & LiveDemo™

Rollbags and more from the experts at PAC Machinery

The PAC Machinery Bags and Materials division specializes in the manufacture of Rollbag brand pre-opened bags on a roll. These bags can be used on virtually any brand of automatic bagger and are produced with 25% post-industrial recycled content. We offer bags in a variety of materials and configurations, from stock rollbags to customized, multi-color printed bags. We manufacture coex poly mailer Rollbags, poly tubing for automatic baggers, and specialty films.

We are committed to satisfying your specific bag requirements, and have the ability to respond to challenging turnaround times. Our experienced designers can help develop a visually impactful bag.

Contact us 1 (800) 985-9570 x 320
materialsales@pacmachinery.com



Custom Rollbags

For all Automatic Bagging Systems

Our Bags and Materials division specializes in custom Rollbag brand pre-opened bags on a roll. These bags can be used on any brand of auto baggers. Our eco-friendly Rollbags are produced with 25% post-industrial recycled resins unless requested otherwise and are FDA compliant. We manufacture our Rollbag in a wide variety of materials and configurations, to fit your specific bagging requirements.

Rollbag bags on a roll are USPS, FDA and USDA compliant. With our quick response time to your requests and 24 hours or less quote turnaround, PAC Machinery is your source for Rollbag pre-opened bags on a roll for your auto bagger.

Features

- Duplex/Combo—color to clear
- Headers— $\frac{1}{2}$ " to 2 $\frac{1}{2}$ "
- Vertical & Horizontal Perforations
- Vent Holes, Hang Holes
- HIS—High Integrity Side Seals
- Compartment Seals
- Perforated On a Roll (POR)
- Coex Mailer Rollbags—for order fulfillment bagging
- Sideload Rollbag for SPrint SidePouch systems
- Re-Sealable Rollbags
- Medical Packaging

Materials

- LLDPE—Linear low-density polyethylene
- HDPE—High-density polyethylene
- Coex Polyethylene (Mailer material)
- Polypropylene
- Nylon
- Opaque and tinted
- VCI—Volatile Corrosion Inhibitor
- UV—Ultraviolet protection
- Anti-Static, Clear & Tinted



Custom Rollbag Parameters and Printing

Bag Size	2–36" Width	3–72" Length
Bag Gauge	1.25–5 mil	
Printing	Line, Screen, and Process Printing	
Up to 8 colors	1 or 2 sided printing 1 color 1 side inline printing for short runs	
Colors	Pantone Matching System	
Inks	Brilliant color solvent-based inks Custom ink formulations	



more Sustainable Custom Rollbags

Additional Recylene® Recycled Content Rollbags for all automatic bagging systems

Recylene materials are manufactured with a unique blend of post-industrial, post consumer, and/or ocean-bound recycled resins. This environmentally-friendly formula is a good alternative to virgin LLDPE. It's perfect for labeling of the bag or with direct printing on the material. Recylene materials are made in the USA and are USPS compliant and #4 recyclable.

Available in the following products

- ✓ Rollbag pre-opened bags on a roll
- ✓ Rollbag pre-opened bags in a box
- ✓ Coex poly mailers
- ✓ Tubing for bag to size equipment
- ✓ Centerfold or sheeting for automatic L-bar sealers and side sealers



Recylene 90ico

Custom Rollbag mailer bag made with post-industrial, post consumer, and ocean-bound raw material which is #4 recyclable and reusable.



Recyclable



Recyclable



Reusable



Ocean-bound

Product	Content	Appearance	Recyclable
Recylene 50i	50% PIR	clear or opaque	
Recylene 50ic	50% PIR/PCR	hazy or opaque	
Recylene 90i	90% PIR	hazy or opaque	
Recylene 90ic	90% PIR/PCR	hazy or opaque	
Recylene 90ico	90% PIR/PCR/OBR	hazy or opaque	

Key

PIR—Post-Industrial Recycled

Raw material made from waste generated from manufacturing.

PCR—Post Consumer Recycled

Raw material made from waste from the consumer/end-user.

OBR—Ocean-Bound Recycled

Plastic that has been picked up within 30 miles of the shoreline.



Rollbag R3200 Automatic Bagger with custom printed recycled and recyclable mailer

Custom Tubing

*For Rollbag R3200s, Magnums,
and all automatic baggers*

Make your own bags with our poly tubing. Combine a Rollbag innovative bagging machine with our coextruded poly tubing to create the right size bag each time a product is packaged. Eco-friendly tubing is produced with 25% post-industrial recycled resins unless requested otherwise and is FDA compliant.

Our tubing can be manufactured in a variety of formulations to match your needs. And, our specially engineered coextruded film poly tubing can be purchased with a shorter lead time.

Benefits of tubing over conventional bags on a roll

- ✓ Increase production efficiency with bag length adjustment
- ✓ Up to 2–3 times longer rolls reduce changeover related downtime
- ✓ Reduce inventory space as fewer rolls are needed
- ✓ Lower material costs because 1 roll makes different length bags
- ✓ Splice-free material—stops jams and waste
- ✓ 2-sided color printing on front and back
- ✓ Our unique production process allows for a short lead time



 25% Recycled Materials

Rollbag Tubing	Mono Layer	3-Layer Coextrusion
Tubing Width	2 –22"	8 –40"
Thickness	1.25 –5 mil	1.25 –5 mil
Rolls (3"ID)	10 –12 OD	13.5 –22 OD
Material	Clear, tints or opaque colors	White/silver, natural tints, or opaque colors
Recycle Content**	PIR	PIR, and PCR
Printing	1-color, 1-side Random repeat 6–12"	1–6 colors, 1–2 sides Random or registered print
Inks	Pantone Matching System	Pantone Matching System

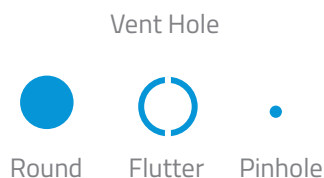
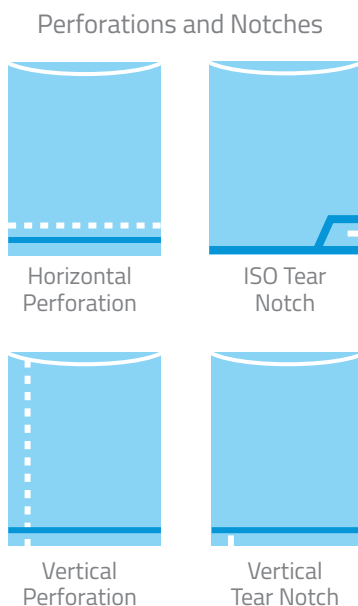
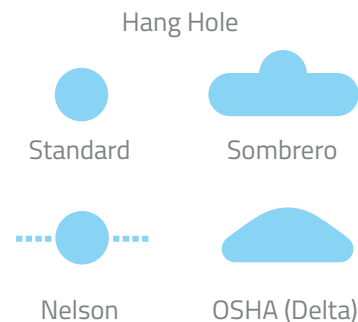


Rollbag Poly Tubing on a R3200XL

Our Coextruded Poly Mailer Rollbag tubing is designed specifically for mail order fulfillment.

Bag Features to Satisfy Your Packaging Requirements

Bags can be customized with a variety of different features, tailoring them to your specific requirements. The following are some of the most common ones.



High-Integrity Seals

High-integrity seals are a wide $\frac{3}{16}$ " seal that is usually made on the edges of the bag, creating a much stronger seal than a standard slit seal. The high-integrity stronger seal is useful for preventing opening during transport, such as with mailer bags.

Compartment Bags

Compartment bags have multiple compartments, with a seal between each compartment. The seal can be perforated so the compartments separate easily. Compartment bags can increase packaging efficiency, as multiple bags can be loaded at once.

Duplex Bags

Duplex bags are made with clear material on one side and colored material on the other, typically white. Duplex bag benefits are that the print on the colored material is very legible, (for a UPC code), while the contents inside are still visible from the clear side.

Go Bags

Guaranteed Open (GO) bags on a roll are designed for use on automatic fillers. With GO bags the slit along the front of the bag runs from edge to edge, for precise opening and filling every time.

Hang Holes

Hang hole style bags allow a package to be placed on a retail display hook. The hang hole is usually near the top of the bag and is often used in conjunction with a header seal. Holes are typically round, but are also available in other configurations.

Header

Header bags have a separate, sealed area at the top of the bag. Headers allow a sealed bag to have a hang hole in it. The header size can range anywhere from $\frac{1}{2}$ " up to $2\frac{1}{2}$ ".

Medical Bags

Medical bags are manufactured and delivered to you as clean as possible by lining cartons with plastic and, in some cases, wrapping each individual roll in plastic. Medical style Rollbags™ have white plastic sideplates to reduce particulate matter.

Perforated Bags

Perforated bags allow the end-user to easily access the product by providing a convenient way to tear the bag open. This feature is especially useful when using heavy gauge bags and can be oriented in the horizontal or vertical direction.

Reclosable Bags

Rollbag™ Reclosable bags are created with a built-in closure system and are used for packaging products that need to be accessed and retrieved again and again.

Tear Notch

A Tear Notch allows a bag to be easily opened by the customer. The tear notch can be in the side of the bag or in the skirt (for pre-opened bags-on-a-roll).

Vent Hole

Vent hole bags eliminate trapped air to reduce the volume of the package, allowing more finished bags to fit in a case. Vent holes are typically 1/8" to 1/4" diameter, and are available as a partially cut flutter vent or with full material removal.

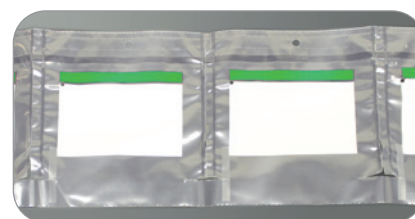
Custom Rollbag Size Range

Bag Width	2–36"
Bag Length	2–72"



Coex Poly Mailer Rollbags

Our Coextruded Poly Mailer Rollbag bags are designed specifically for mail order fulfillment. They are available as bags on a roll or fan-folded in a box. These mailer envelope bags are designed to work on all brands of automatic baggers and auto packers that are used in mail order fulfillment. These bags come perforated and pre-opened for high volume mail order fulfillment.



SPrint™ Style Sideload™ Bags

Sideload bags from PAC Machinery Bags and Materials are available unprinted, or may be custom printed in up to 8 colors. Bags are made to order with a wide range of configurations, including vent holes, tear notches and perforations. PAC Machinery offers both short lead times and competitive pricing on Sideload bags designed specifically for use on high-speed, SPrint SidePouch® baggers.

SPrint and SidePouch are trademarks of Automated Packaging Systems.
PAC Machinery is not affiliated with Automated Packaging Systems.

Custom Bag and Tubing Materials

Start with the right material

PAC Machinery Bags and Materials division offers a wide selection of high quality flexible packaging materials for our Rollbag brand of pre-opened bags on a roll. We extrude materials up to a maximum of 6 mil. The thickness depends on the type of material selected—all are FDA compliant. Our experienced packaging specialists will help you determine the right material for your application. Our eco-friendly materials are produced with 25% post-industrial recycled resins unless requested otherwise or where noted.

Barrier Films <small>Values are nominal</small>	Mil	MVTR Grams	OTR CC
CPP Polypropylene	2.0	.50	130
Nylon Coex	3.0	.60	8.5
Nylon Coex EVOH	3.0	1.10	.18
LLDPE/LDPE	2.0	.65	250
LLDFP/HDPE	2.0	.20	133
BOPP	2.0	.17	4.5
Metalized Polyester	2.0	.012	1.7

g/100 sq. in. 24 hours

cc/100 sq. in. 24 hours

MVTR—Moisture Transmission Rate

Measure of the passage of gaseous H₂O through barrier
WVTR 100 F, 90%RH

OTR—Oxygen Transmission Rate

Measure of the passage of oxygen gas through barrier
OTR 73 F 0% RH



25% Recycled Materials

Make Your Own Bags with Our Poly Tubing

Combine a Rollbag innovative bagging machine with our coextruded poly tubing from PAC Machinery Bags and Materials to create the right size bag each time a product is packaged. Poly tubing can replace bags on a roll to reduce bagging material and shipping costs. Ideal for eCommerce applications, our specially engineered coextruded film poly tubing has the high puncture strength and tear resistance to withstand the rigors of mail order fulfillment for poly mailer envelopes. Eco-friendly tubing is produced with 25% post-industrial recycled resins unless requested otherwise and is FDA compliant.



25% Recycled Materials



Rollbag R3200 Automatic Bagger with custom printed tubing

Materials for Custom Bags and Tubing

LDPE	Low Density Polyethylene	General Purpose
LLDPE	Linear Low Density Polyethylene	Ideal for everyday packaging needs our most common film for Rollbags. High strength while maintaining clarity and flexibility. Clear, tinted, opaque.
HDPE	High Density Polyethylene	HDPE is used for moisture and vapor barrier applications, or for scratch-resistant requirements. HDPE is stronger than an LLDPE bag at the same gauge, and slightly opaque. Blend of Buten, Octene, Hexicene, Metallocene.
Coex	Coextruded Polyethylene	Coex material is two or more resins combined into a multi-layer structure. Mailers, Mil-Spec, Sterilizable, Scratch Resistant and Embossed Films.
PP	Polypropylene	High clarity film for retail applications that provides higher strength than polyethylene.
N	Nylon	Nylon offers the highest levels of puncture resistance, and is an excellent oxygen (O2) and carbon-dioxide (CO2) barrier. A top choice for vacuum-packaging applications.
BOPP	Biaxially Orientated Polypropylene	Biaxially stretched film for increased strength and barrier protection. The film is crystal clear perfect for Flow Wrap packaging.

Additives for Custom Bags and Tubing

Anti-static	Dissipative	Anti-Static Additive Film comes in clear or pink tinted for static dissipative (SD) applications. Ideal for electronics.
BIO	ECM Batch	Polyethylene blend with bio-additive for enhanced biodegradability according to ASTM D5338-98 and D5511 standards. Available in clear or with a green tint.
Color	Tinted or Opaque	Film can be colored or tinted for color coding and privacy.
EVOH	Barrier	Ethylene vinyl alcohol is best known for oxygen transmission control to safeguard quality and extend shelf life of packaged products.
UV	Ultra Violet Inhibitor	UVI additive extends the life of your package in sunlight conditions. Combine with UVI fade-resistant inks for outdoor package storage.
VCI	Volatile Corrosion Inhibitor	VCI materials eliminate corrosion for metal products. Formulas are available for ferrous metals (rust control) and non-ferrous metals. Tinted yellow, green, or blue.

Ecology Friendly Film—25% Post-industrial recycled content, processed by PAC Machinery Bags and Materials



Material Structure: Blown Film Polyethylene Application: General Packaging

Product Code : (ECO-F)

Typical Physical Properties @ 1 Mil

Property	Value	Unit	ASTM
Melt Index (MFI)	1.5-2.00	Grams 190	D 1238
Film haze	6.0-10.00%	Percent	D 1003
Gloss @ 45	75%	Percent	D 2457
Dart Drop Impact strength	150	Grams	D 1708
Tensile Strength & Break MD	32,000	PSI	D 882
Tensile Strength & Break TD	37,000	PSI	D 882
Elongation & Break, MD	250%	Percent	D 882
Elongation & Break TD	560%	Percent	D 882
1% Secant Modulus MD)	31,000	PSI	D 882
1% Secant Modulus TD	31,000	PSI	D 882
1% Secant Modulus (MD)	36,000	PSI	D 882
<i>Tear Strength MD(TD)</i>	<i>101</i>	Grams	D 1922
<i>Tear Strength TD</i>	<i>101</i>	Grams	D 1922
Ultimate Elongation MD	590%	Percent	D 1882
Ultimate Elongation TD	785%	Percent	D 1882

FDA STATUS: This product complies with the Food and Drug Administration Regulation 21 CFR 177.1520, which allows for the use of Olefin Polymers in articles or components of articles that are intended for use in direct contact with food.

It is the responsibility of the end user to assure compliance with any packaging regulation applicable to the end use for which the product is manufactured.



Rollbag Specifications

A tolerance guide for custom Rollbags

Dimension	Tolerance
Bag Width	Plus or Minus 1/8"
Bag Length & Skirt	Plus or Minus 3/16"
Bottom Seal	1/8" Plus or Minus 0"
Opening (over/under zung)	Plus 2 ticks each side, front/back Minus 0
GO Bag	Guaranteed open / edge to edge only
Vertical Perforation (VEP)	Plus or Minus 1/8" side/side
Horizontal Perforation (HEP)	Plus or Minus 3/16" up/down
Hang Hole(H.H.) & Vent	Plus or Minus 1/8" side/side, 3/16" up/down
Print	All material treated for Flexo & Thermo print
Print Position & Alignment	Plus or Minus 1/8" side/side, 3/16" up/down
Print location Clear area	1/4" from all seals 1" from opening
Thermo print position	3/4" larger than width & length of print.
Rollbags on rolls over 12"Long	Vent preferred or Fan Fold
Medical Packaging (standard)	Plastic cores & side plates, metal plugs, rolls double bagged and/or case lined
Side fill (Sprint Style)	Stated as OD & ID plus 7/8" fill channel. With or without I/T-Cut
Roll winds	Firm and Concentric No telescoping
Splices Print & Plain	Allowable no more than 2 per roll
Seal area for Rollbag Machines	Allow 1" for closing seal on Rollbag machines
FDA/USDA	Standard for all Rollbag products

Rollbag Roll Packing Configuration

Guide to the number of bags on each roll and how many rolls will be packed per carton.

Bag Length in inches	Number of Bags Per Roll				
	1.35 mil	1.5 mil	2 mil	3 mil	4 mil
2		7000	5500		
3	5000	4500	4000	3000	2000
4	4500	4000	3000	2000	1500
5	3500	3000	2000	1500	1250
6	3000	2500	2000	1500	1000
7	2500	2000	1750	1250	1000
8	2000	1750	1250	1000	750
9	1750	1500	1250	1000	750
10	1750	1500	1250	750	500
11	1500	1250	1000	750	500
12	1500	1250	1000	750	500
13	1250	1000	1000	750	500
14	1250	1000	900	750	500
15	1250	1000	750	500	500
16		900	650	500	400
17		800	650	500	400
18		750	650	350	400
19		750	650	500	400
20		750	650	350	250

Thickness Mil— 1.35 mil to 5.0 mil + or -10%

Bag Width in Inches	2	3	4	5	6	7	8	9	10	11	12
Rolls Per Case	16	12	8	8	4	4	4	4	4	4	4
Cases Per Pallet	20	20	20	16	24	24	20	16	16	16	12
Layers	5	5	5	4	6	6	5	4	4	4	3

Round up to nearest whole number to find proper packing configuration.
For example, 4.5 x 7.5 x 2 mil = 1250 bags/roll, 4 rolls/case, and 20 cases/pallet.

Printing Capabilities & Artwork Font Requirements

Custom Printing

Custom printing is available from simple one color printing to complex multi-color printing. We can custom configure bag features (header and hang hole, for example) with custom printing to create the perfect bag for your product. We deliver superior results every time, and if you require help in developing a visually impactful bag design, our experienced graphic design department is happy to help.

Up to 8 colors
2 sides
Pantone® Color Matching Systems
Vibrant Solvent Based Inks
Line, Screen and 4-Color Process Print



Print Important Information and Safety Warnings

Protect your customers with safety warnings printed directly on your bags. Several states and cities, including California, Massachusetts, New York, Rhode Island and Virginia, Chicago and New York city, have laws requiring suffocation warning labels for plastic bag with a thickness of less than 1 mil. Check your area for laws that apply.



Print safety information on the bag and eliminate the need to apply a separate label.

Safety suffocation warning type size recommendations

Total Length + Width of bag combined (except Dry Cleaning Bags)	Minimum Type Size
Less than 25 inches	10 point
25 to 39 inches	14 point
40 to 59 inches	18 point
60 inches or more	24 point

Artwork Specifications

Flexographic Printing

Flexographic Printing can be used for printing on almost any type of substrate, so it is the perfect process for printing on flexible packaging. Flexographic printing works by using polymer plates wrapped around a cylinder. The plates are made of a flexible material and the printing results are different than other printing processes such as offset printing, which is done with metal plates. With this in mind, the art preparation process is a bit different. The following specs should help your design to be printed flexographically.

Or, send us the best sample bag/sleeve you have and for an added charge, our design specialist will re-create your artwork for you.

Scanning Artwork/Logos

Scan art at 300 ppi (pixels per inch) and at 100% scale. Artwork or logos taken from the Internet will not reproduce at a high quality, the resolution is at 72 dpi which is too low for printing. If you have camera-ready art we can scan it for you.

Macintosh or PC Software

Our art department is Macintosh based. Our preferred program for building artwork is Adobe Illustrator for Mac. We also accept InDesign, Quark XPress, or Photoshop files. We are able to convert PC based files as well.

Sending Artwork

You may send your artwork on CD-Rom, DVD-Rom, or through e-mail as an attachment (limited to 10mb folders - please be sure to send a PDF). Send all file components and both printer and screen fonts. Please be sure to send a color printout with your file.

Dielines

Please contact us to see if we have a dieline that is compatible with your art. When designing your artwork, please maintain 1/8" margin from all perfs, 1/4" margin from all seals/holes and 1 1/2" margin from bag opening, unless it is an intentional bleed. Please create new dielines in Adobe Illustrator.



Type Specifications

Minimum type size is 6pt for positive and 8pt bold for reverse. Sans serif fonts work best for type smaller than 7pt. Type reproduces best as one color, not as a process-build. PLEASE do not set type in Photoshop, this is best done in Illustrator, for trapping purposes. If there are technical drawings in your design make it positive print and try to keep all the rules above 1pt. Please contact your sales representative for suggestions.

Common Plates

You can keep costs down by keeping common design pieces in the same place on each separate part number.

Screens or Gradients

When creating screens or gradients in an artwork file, be sure to take the file from a minimum 5% to a maximum of 100%. Anything under 5% may not reproduce well. The finest line screen we can hold is 100 lpi (lines per inch).

Bar Codes

Try to keep barcodes at 100% or higher. We can go as low as 80%, but we can not guarantee it for scannability. Please keep barcode size in mind when creating small designs. Bar Codes print and scan better if they are printed in a dark color on a white back up. It is recommended that the bar code direction be consistent with the web direction (see unwind direction)

Unwind Direction

The unwind direction is the direction that bags or sleeves will come off the roll. If this is a non-automated application (bags will be filled by hand or sleeves will be applied by hand), the unwind direction is not important. When machines are used, that specific machine will have a necessary unwind direction. Please contact your sales representative with questions on unwind direction.

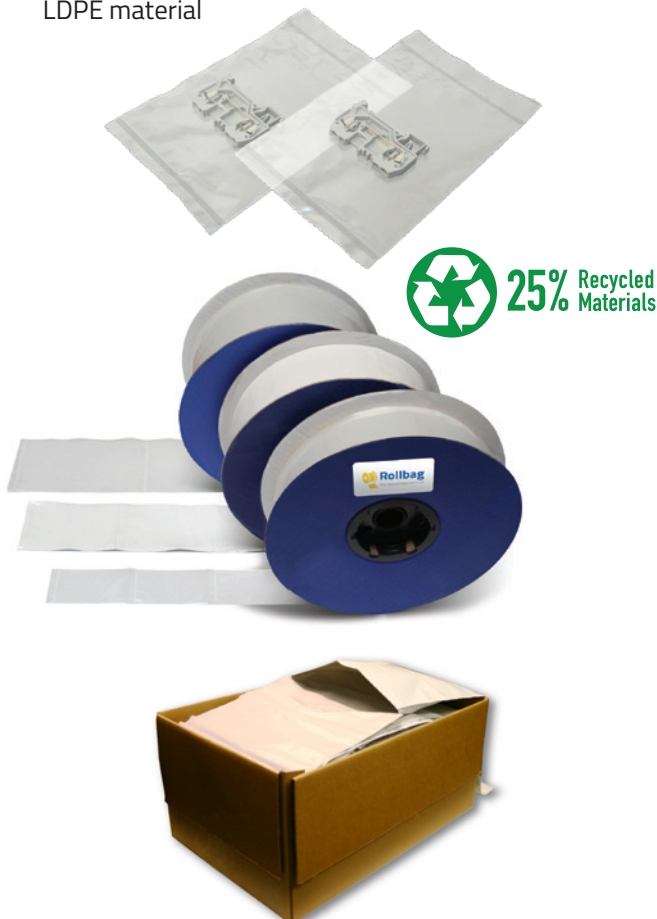
Stock Rollbags

Stock Rollbag pre-opened bags on a roll typically ship within two business days.

Eco-friendly Stock Rollbags are produced with 25% post-industrial recycled resins and are FDA compliant. Stock bags are manufactured in a variety of sizes and thicknesses, in both clear and duplex (white front /clear back) material. Clear bags are also available with a $\frac{1}{8}$ " vent. The coex mailers are USPS compliant available as bags on a roll or fan folded in a box.

Stock Rollbags are made with LLDPE material, which results in a thinner yet stronger bag when compared to regular LDPE material:

- LLDPE Standard is 1.5 mil, equal in strength to 2.0 mil LDPE material
- LLDPE Extra is 2.0 mil, equal in strength to 3.0 mil LDPE material



Clear Rollbags	W" x L"	Strength	Bags/ Roll	Rolls/ Case	Bags/ Case
982-000009	2" x 3"	Extra	4,000	16	64,000
982-000001	3" x 3"	Standard	4,500	12	54,000
982-000010	3" x 3"	Extra	4,000	12	48,000
982-000011	3" x 4"	Extra	3,000	12	36,000
982-000002	3" x 5"	Standard	3,000	12	36,000
982-000012	3" x 5"	Extra	2,000	10	24,000
982-000014	4" x 5"	Extra	2,000	10	20,000
982-000004	4" x 6"	Standard	2,500	10	25,000
982-000015	4" x 6"	Extra	2,000	10	20,000
982-000079	4" x 6"	Super	1,500	10	15,000
982-000016	4" x 8"	Extra	1,250	10	12,500
982-000017	5" x 6"	Extra	2,000	8	16,000
982-000006	5" x 7"	Standard	2,000	8	16,000
982-000018	5" x 7"	Extra	1,750	8	14,000
982-000007	6" x 8"	Standard	1,750	6	10,500
982-000020	6" x 8"	Extra	1,250	6	7,500
982-000021	6" x 10"	Extra	1,250	6	7,500
982-000008	8" x 10"	Standard	1,500	4	6,000
982-000022	8" x 10"	Extra	1,250	4	5,000
982-000023	9" x 12.5"	Extra	1,000	4	4,000

Duplex—White Front Open, Clear Back Rollbags

982-000072	4" x 6"	Extra Duplex	2,000	10	20,000
982-000073	5" x 7"	Extra Duplex	1,750	8	14,000
982-000074	6" x 8"	Extra Duplex	1,250	6	7,500
982-000075	8" x 10"	Extra Duplex	1,250	4	5,000

Vented Clear Rollbags

987-000015	4" x 6"	Extra Vented	2,000	10	20,000
987-000018	5" x 7"	Extra Vented	1,750	8	14,000
987-000020	6" x 8"	Extra Vented	1,250	6	7,500
987-000022	8" x 10"	Extra Vented	1,250	4	5,000
987-000023	9" x 12.5"	Extra Vented	1,000	4	4,000

Suffocation Warning Rollbags, Vented

983-000001	10" x 15"	Standard	1,000	4	4,000
983-000002	9" x 12.5"	Extra	1,000	4	4,000
983-000003	6" x 8"	Extra	1,250	6	7,500

White/Silver Coex Rollbag Mailer, Vented

988-000082	8" x 11"	2.5 Mil	750	4	3,000
988-000083	10" x 13"	2.5 Mil	750	4	3,000
988-000084	12" x 15.5"	2.5 Mil	500	4	2,000
988-000085	14.5" x 19"	2.5 Mil	1,000	fan folded per case	
988-000086	16" x 27"	2.5 Mil	750	fan folded per case	

Thermal Transfer Ribbon—for Auto Baggers

The versatile printing solution

Thermal transfer offers a reliable print solution for printing barcodes, logos, use by dates, batch numbers, ingredients and other text on flexible packaging films.

The quality of a thermal transfer print is determined by the choice of thermal transfer ribbon. The actual print is created when the ink from the ribbon is transferred to the Rollbag or packaging by the thermal transfer printer system. The print format is generated by the printer program.

Our high performance thermal transfer ribbons are designed specifically for printing on flexible packaging and offer a great combination of Thermal print label durability, print speed and cost. Wax-resin inks for near-edge printers offer the best combination of print quality, speed and cost, while the resin inks are the best suited to applications requiring extra durability.

Our inks are also formulated in white, metallic and various colors for printing on colored packaging films.

Our knowledgeable sales team and customer service department is committed to help you select the perfect thermal transfer ribbon for the thermal transfer printer on your auto bagger or other type of packaging machine.



PAC Machinery offers labels for print and apply system automatic baggers.

WAX

Rollbag Brand Standard wax. For use in most common bagging applications.

The low-cost solution developed for flat head printers. Wax inks are particularly suitable for printing on paper labels, whether vellum or coated paper.

WAX-RESIN

Rollbag Brand Premium wax/resin.

For applications requiring additional smudge resistance, or for challenging printed or coated bags.

These ribbons print on a wide range of media, from paper to synthetics. They offer higher print quality and higher scratch and friction resistance compared to wax inks.

Thermal Transfer Ribbon—for all automatic baggers

Premium, Standard, Near Edge, and AutoLabel Compatible printer ribbon

	Width (mm)	Length (m)	Width (in)	Length (ft)	Rolls/ Carton
Rollbag Systems Premium Ribbons—for graphics and printing					
984-000013	80	300	3.15	985	36
984-000014	80	450	3.15	1,475	24
984-000015	110	300	4.33	985	24
984-000012	110	450	4.33	1,475	24

Rollbag Systems Standard Ribbons—for test and barcode printing

984-000016	80	300	3.15	985	36
984-000017	80	450	3.15	1,475	24
984-000018	110	300	4.33	985	24
984-000019	110	450	4.33	1,475	24

Rollbag Systems Autobag Ribbons—developed for Autobag printers

984-000009	53	610	2.09	2,000	24
984-000010	80	610	3.15	2,000	24
984-000011	102	610	4.02	2,000	12
984-000021	106	610	4.17	2,000	12

Rollbag Systems Near Edge Printer—developed for Toshiba printers

984-000004	127	600	5	1,968	24
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Rollbag Systems Sharp Ribbons—developed for Sharp printers

984-000022	102	610	4.02	2,001	12
984-000023	76	610	3	2,001	12
984-000024	55	610	2.16	2,001	24

Rollbag R3200 Ribbons – for our R3200 Rollbag System with printer

984-000034	55	700	2.16	2,296	12
984-000010	110	700	4.33	2,296	6



PAC Machinery supplies high performance thermal transfer ribbons designed specifically for printing on flexible packaging, our ribbon is a solution to the demands of durability, print and cost.

Bag Film Terms

Additives

A diverse group of specialty chemicals incorporated into plastic formulations before or during processing, or to the surfaces of finished products after processing. Their primary purpose is to modify the behavior of plastics during processing or to impart useful properties to fabricated plastic articles. (Modern Plastics Encyclopedia 1995).

American Society of Testing and Materials (ASTM)

The main standardization body for materials standards in the United States. Including materials standards and testing protocols for plastic sheeting.

Biaxial Orientation

This term indicates orientation of plastic films in both machine and cross-machine directions by stretching. Biaxially stretched films are generally well balanced in both directions and much stronger in terms of tear strength.

Biodegradable

The American Society of Testing and Materials defines biodegradable as "Capable of undergoing decomposition into carbon dioxide, methane, water, inorganic compounds, or biomass in which the predominant mechanism is the enzymatic action of microorganisms that can be measured by standardized tests, in a specified period of time, reflecting available disposal condition." For practical purposes claims about biodegradability of plastic should specify a time frame.

Blown Films

Plastic films produced from synthetic resins (such as polyethylene) by the blown process. In this process, the molten resin is extruded through a circular die into a tube. This tube is expanded ("blown") by internal air pressure into a larger bubble with a much reduced wall thickness and cooled with external air quenching.

Cast Film

Plastic film produced from synthetic resins (such as polyethylene) by the cast process. In this process, the molten resin is extruded through a slot die onto an internally cooled chill roll.

Coextrusion

The simultaneous extrusion of two or more different thermoplastic resins into a sandwich-like film with clearly distinguishable individual layers. This involves a process where parts are blow-molded with walls containing two or more layers of different material. Coextrusion offers wide latitude for material selection and also allows the use of recycled materials. A material with good barrier properties, for example, can be used for the inside and outside surfaces of a blow molded bottle, while recycled material can be used for the internal layer. (Modern Plastics Encyclopedia 1995).

COF

The coefficient of friction is a measurement of "slipperiness" of plastic films and laminates. Measurements are determined film surface to film surface. Measurements determined from other surfaces are not recommended because of variations in surface finishes and contamination on test surface.

Ethylene

A colorless gaseous aldene obtained from petroleum and natural gas and used in manufacturing the most common plastic bags.

Extrusion

One of the most common plastics processing techniques covering a vast range of applications in which resins are melted, heated and pumped for processing. Extrusion machines accomplish these tasks by means of one or more internal screws. In extrusion, the material to be processed is sheared between the root of the screw and the wall of the barrel that surrounds it. This process produces frictional energy that heats and melts the substance as it is conveyed down the barrel. Melted extrudate from the machine is further processed after the extrusion phase, which typically produces pellets, sheet, cast film, blown film, fibers, coatings, pipes, profiles or molded parts.

(Modern Plastics Encyclopedia 1995).

Film Strength

This term refers to the physical strength of the can liner. Some resins have higher film strength than others. Our can liners are made from highest quality resins, giving them the highest quality film in the market place. Various types of strength testing are: Dart Drop Test—ASTM test used to determine the resistance of a bag to local failure or puncturing. Elmendorf Tear Test—ASTM test used to measure the resistance to tearing. Wet Load Capacity - Measurement of how much wet weight a can liner will hold. Dry Load Capacity - Measurement of how much dry weight a can liner will hold.

Gauge

Term used to describe thickness of a plastic sheet, measured in mil's or microns. Mil (One thousandths of an inch) Term used in the measurement of LDPE and LLDPE can liners. One mil is .001". Can liners range between 0.35 to 4.0 mil. Micron Term used in the measurement of HMW-HD can liners. 25.4 microns equals .001". 1,000 microns (M) = 1mm. HMW-HDPE can liners are 6 to 24 microns.

Gusset

Gussets are indented folds on the sides or bottom of a poly bag that allow the bag to expand up to the limits of the fold in order to comfortably accommodate variable volume or shaped contents. Gusseted bags are designated in three dimension measurements; Side Seal = W X Gusset X Length; Bottom Gusset = W X L + BG.

HDPE

This is the acronym for High density, (0.95-0.965) polyethylene. It has much higher stiffness, higher temperature resistance and much better water vapor barrier properties than LDPE, but it is considerably hazier.

LDPE (Low Density Polyethylene)

This resin was used with older can liner technology. The resin has good clarity but weak film strength. Today it is used primarily for Food and Utility bags. A plastic used predominantly in film applications due to its toughness,

flexibility and relative transparency. LDPE has a low melting point, making it popular for use in applications where heat sealing is necessary. Typically, LDPE is used to manufacture flexible films such as those used for plastic retail bags and garment dry cleaning and grocery bags. LDPE is also used to manufacture some flexible lids and bottles, and it is widely used in wire and cable applications for its stable electrical properties and processing characteristics. (Adapted from Modern Plastics Encyclopedia 1995)

LLDPE (Linear Low Density Polyethylene)

This is the primary type of resin used in modern can liner manufacturing technology. Bags made from LLDPE film provide excellent combination of film strength, puncture resistance and tear resistance. This is a plastic that is used predominantly in film applications due to its toughness, flexibility and relative transparency. LLDPE is the preferred resin for injection molding because of its superior toughness and is used in items such as grocery bags, garbage bags and landfill liners. (Adapted from Modern Plastics Encyclopedia 1995; Plastic Packaging Opportunities and Challenges, February 1992).

Nylon

Polyamide resins, with very high melting points, excellent clarity and stiffness. Two types are used for films: nylon-6 and nylon-66. The latter has much higher melt temperature, thus better temperature resistance, but the former is easier to process, and it is cheaper. Both have good oxygen and aroma barrier properties, but they are poor barriers to water vapor. Also, nylon films can be cast (see CAN), or oriented, (see BON).

Opacity

A term to indicate the hiding power of pigmented (mostly white) plastic films. It is beneficial for packing materials sensitive to light (visible or ultraviolet).

Polyethylene

A lightweight thermoplastic used especially in packaging. Polyethylene (PE) molecules have two hydrogen atoms attached to each carbon atom in a chain. This structure gives polyethylene it's tough, flexible and chemical resistant characteristic

Polyethylene Terephthalate (PET or PETE)

PET is clear, tough and has good gas and moisture barrier properties. Some of this plastic is used in PET soft drink bottles and other blow molded containers, although sheet applications are increasing. Cleaned, recycled PET flakes and pellets are in great demand for spinning fiber for carpet yarns and producing fiberfill and geotextiles. Other applications include strapping, molding compounds and both food and non-food containers. (Adapted from Modern Plastics Encyclopedia 199

Resin

This is a short term for Polyethylene (PE) resin. The three types of PE resins are LDPE, LLDPE and HMW-HDPE (see below). Other plastic resins include vinyl, polypropylene, styrene and nylon. LDPE (Low Density Polyethylene) - This resin was used with older can liner technology. Resin has good clarity but weak film strength. Today it is used primarily for Food and Utility bags.

LLDPE (Linear Low Density Polyethylene)—This is the primary type of resin used in modern can liner manufacturing technology. Bags made from LLDPE film provide excellent combination of film strength, puncture resistance and tear resistance.

HMW-HDPE (High Molecular Weight)—High Density Polyethylene) Bags made from HMW-HDPE resin provide excellent film strength and puncture resistance, but less tear resistance than LLDPE.

Butene—One of three types of LLDPE resin. Butene has weaker film-strength properties than Hexene or Octene.

Hexene—One of three types of LLDPE resin. Some manufacturers use a Higher Alpha Olefin (High Grade Hexene) in the manufacturing of can liners. Properties include high film strength and increased tear resistance.

Octene—One of three types of LLDPE resin. Used in other applications because of its excellent physical properties.

Prime Resin—Refers to the usage of high-quality, "fresh from the reactor", resin. Blended Resin - Refers to the combination of two or more types of resin. Reprocessed

Resin—Refers to resin that has been used at least once before. Can be post-industrial (scrap) or post-consumer (recycling). Property of resin is decreased each time it is reused

UVI (acronym)

Ultra Violet Inhibitor. This is an additive used in making plastic sheeting that requires protection from sunlight.

Virgin Resin

This is a term that refers to pure and clean (no recycled material is included) resins.

Warning Label

These are labels on packaging that indicate improper use of the enclosed products and warning of the dangerous results of improper use. This type of label is required by law.

General Terms

FDA (acronym)

Food and Drug Administration

What does FDA compliant mean?

FDA compliant means that products are not regulated by the Food and Drug Administration, but that they comply with the regulations as stated in the appropriate CFR's (Code of Federal Regulations).

What is Oxygen Permeance (PO₂)?

The ratio of oxygen transmission rate to the difference in partial pressure of O₂ between the inside and outside of the material

What is meant by a Barrier Bag?

Barrier bags offer protection from one or more environmental factors. They are typically "foil" bags. There are quantifiable levels of barrier protection for these films. Moisture Vapor Transmission Rate (MVTR) for water barrier, Oxygen Transmission Rate (OTR) for air permeability, Gas Transmission Rate (GTR) for non-oxygen vapors and Optical Density (OD) for light barrier properties. These are specifications that are frequently available from an end-user of the bag and they are a key component in selecting the proper material for use as an effective barrier bag. Barrier bags are also available in clear films, but they typically provide lower protection levels than those with buried metal construction

OTR: Oxygen transmission rate

OTR of plastic materials varies considerably with humidity; therefore it needs to be specified. Standard conditions of testing are 0, 60 or 100% relative humidity. Units are cc.100 square inches/24 hours, (or cc/square meter/24 Hrs.) (cc = cubic centimeters)

What is an Anti-Static Bag?

Anti-Static bags are "non-tribocharging" —meaning that they do not create static electricity in and of themselves. They will not generate a "spark" when opened, closed, filled, emptied or handled. However, they DO NOT protect the component inside the bag from external static electricity. They are recommended for use with non-critical components that are being handled in a static sensitive environment, for example parts kits or instruction packets.

What is CONEG?

Shelf-life is important in products that are effective, useful or suitable for consumption for a limited period of time. They are expected to deteriorate or become unstable over time. Therefore a storage period is assigned to assure that the material will perform satisfactorily in service. Proper storage conditions for poly bags avoid sustained temperatures over 90° F and under 32°F. Sustained exposure to sunlight should also be avoided when the film material does not contain any anti-UV additives.

A Complete Solution

Rollbag brand pre-opened bags and Rollbag poly tubing are the perfect compliment to Rollbag Systems automatic packaging equipment. Rollbag Systems designs and manufactures:

Manual Baggers
Automatic Baggers
High Speed Baggers
Validatable Medical Baggers
Fulfillment Automatic Baggers

The versatile Rollbag R3200 Fulfillment automatic bagger offers a simple to operate bag making system using poly tubing, providing both faster fill speeds and lower material costs. The R3200 is capable of making bags in line before they are filled and sealed. Or choose the Rollbag R1285 Velocity which features "next-bag-out" printing for order fulfillment. Rollbag baggers can be equipped with a variety of options to match your unique bagging requirements.

Rollbag baggers carry a one-year limited warranty that may be extended to five years when used exclusively with Rollbag brand material.



Rollbag Systems

Rollbag R1285 Automatic Bagger



LiveDemo with PAC Machinery

As the bag manufacturer, PAC Machinery wants to ensure companies are getting the most out of their bag purchase. One way we do this is with our LiveDemo capability, which allows us to help customers optimize their packaging operations remotely. With this capability we can:

- 1) Help customers fine-tune their bag specifications. We can conduct live testing of the packaging process using actual products and bags, ensuring performance requirements are met.
- 2) Train customer how to optimize packaging performance through live video.
- 3) View different packaging system options.

LiveDemo is instant face-to-face access to expertise for real-time support. Contact us to request a LiveDemo session at your facility.

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PAC Machinery Bags and Materials is a leading U.S. manufacturer of high quality, sustainable, flexible packaging materials for automatic bagging machines located in Milwaukee, WI. We are a division of PAC Machinery, a leading domestic manufacturer of packaging equipment. We provide competitive pricing and lead times on a wide selection of custom and stock bags produced with a minimum of 25% of recycled material, meeting all shipping regulations and requirements. Our Rollbag® brand of pre-opened bags on a roll are considered “industry standard” and can be used on virtually all brands of automatic baggers. Other products include coex poly mailers, poly tubing, side load bags, thermal transfer ribbon, and additional sustainable packaging options for the environmentally conscious company.

PAC Machinery brands



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PAC Machinery
Bags and Materials

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