



Flexible Packaging Glossary

55 terms every packaging buyer, designer, and engineer should know

What is flexible packaging?

Flexible packaging is made from films, papers, and other pliable materials that can be printed, sealed, and shaped around a product. It protects food and consumer goods, extends shelf life, and carries your brand to the shelf. From shrink film and lidding film to flexographic printing and slitting, the industry has a vocabulary of its own.

This glossary explains the most common flexible packaging terms in plain language, so you can specify materials with confidence, compare suppliers, and get better results on your next packaging project.

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About Mann-Pak: a second-generation, family- and veteran-owned flexible packaging printer and converter with over 35 years of experience, American-made products, and SQF-certified processes.

MATERIALS & FILMS

Substrate

The base material that is printed on or converted, such as plastic film, paper, or paperboard. The substrate you choose drives cost, barrier performance, appearance, and how well the packaging runs on your equipment.

Polyethylene (PE)

A widely used, flexible, heat-sealable plastic available in low-, medium-, and high-density forms. Common in overwraps, bags, and sealant layers.

Polypropylene (PP, OPP, BOPP)

A clear, moisture-resistant film. Oriented polypropylene (OPP) is stretched in one direction and biaxially oriented polypropylene (BOPP) in two, which improves clarity and strength. Popular for snack, bakery, and candy packaging.

Oriented Polystyrene (OPS)

A clear, glossy film with a crisp look, used for overwraps and windows where product visibility and shelf appeal matter.

Glassine

A smooth, dense, translucent paper with moderate grease resistance. Used for bakery and candy overwraps, liners, and cups.

Cupstock

Paper or paperboard used to form cups and liners, such as those that hold chocolates and other confections.

Layer Board

Paperboard rollstock that separates layers of product or serves as a base. Available uncoated, clay-coated, polycoated, or perforated; well suited to candies, baked goods, and snack packs.

Polycoated Paper / Board

Paper or paperboard with a thin polyethylene coating that adds moisture resistance and heat-sealability.

Shrink Film

Plastic film that tightens around a product when heat is applied. Used for protection, bundling, tamper evidence, and display.

Polyolefin Shrink Film (POF)

A clear, glossy, durable shrink film made from polyolefin resins. Grades include general-purpose, crosslinked/high-abuse, anti-fog, and biodegradable options. See Mann-Pak's Shrink-Link program for printed shrink film.

Overwrap Film

Film wrapped around a product or carton and then sealed. Clear, opaque, and metalized versions protect the product while supporting brand presentation.

Lidding Film

Film sealed over the top of a tray, cup, or container. Options include easy-peel or lock-seal characteristics and anti-fog properties.

Bundling Film

Film used to group multiple items into one unit, either unsupported or in trays or partial cases. Helps with source reduction.

Metalized Film

Film coated with an extremely thin layer of metal, typically aluminum, to improve its barrier to light, moisture, and gases and to add a reflective look.

High-Barrier Film

Film engineered to sharply limit the passage of oxygen, moisture, and aromas in order to protect product quality and extend shelf life.

Nanocomposite Film

A polymer film containing nanoscale particles that improve barrier and strength. Mann-Pak's specialty products include high-barrier films and barrier laminations.

Laminate / Lamination

Two or more layers of film, foil, or paper bonded together so the finished structure combines properties, such as a printable outer layer with a heat-sealable inner layer.

Anti-Fog Film

Film treated so condensation forms a clear sheet instead of droplets, keeping food visible. Common for produce, bakery, and chilled-food lidding.

Rollstock

Packaging material supplied on a continuous roll for automated packaging machines, as opposed to pre-made bags or sheets.

PRINTING & COLOR

Flexographic Printing (Flexo)

A printing method that transfers fast-drying ink from flexible raised plates onto the substrate. Well suited to films and papers. Mann-Pak runs central impression 8-color presses up to 48" wide.

Central Impression (CI) Press

A flexo press with all color stations arranged around one large central drum. Because the web stays supported, color-to-color registration is tight, even on thin, stretchy films.

Printing Plate

A flexible relief plate that carries the image to be printed. Photopolymer plates are created by exposing the material to UV light.

Prepress / Artwork

The steps that happen before printing: preparing artwork, separating colors, proofing, and making plates. Well-prepared files prevent costly press delays.

Registration

The alignment of each printed color with the others. Tight registration keeps text, graphics, and barcodes sharp.

Spot Color

A premixed ink made to match a specific color, such as a brand's signature navy or red. Often specified using the Pantone Matching System.

Process Color (CMYK)

Full-color printing built from cyan, magenta, yellow, and black inks applied in small dots to reproduce photos and gradients.

Pantone Matching System (PMS)

A standardized color-matching system that assigns numbers to colors so brands can get consistent results across suppliers and materials.

Distortion Compensation

Artwork that is deliberately pre-distorted so it looks correct after a shrink film has shrunk around the product.

Web (Wide Web / Narrow Web)

The continuous strip of material moving through a press or slit. Wide web equipment handles broader rolls; narrow web handles smaller widths.

Proof

A sample or mockup of the printed design used to approve color and layout before production begins.

CONVERTING & FINISHING

Converting

The process of turning raw film, paper, or board into finished packaging materials through printing, slitting, laminating, folding, and winding.

Toll Converting

A service in which the customer supplies the material and specifies the result, and the converter performs the work, such as printing, slitting, winding, or centerfolding, for a fee.

Slitting

Cutting a wide roll into narrower rolls. Mann-Pak offers roll-to-roll wide web and narrow web slitting, with slit widths down to 2" on 3" and 6" cores.

Centerfolding

Folding film in half lengthwise to form a single roll. The fold allows wider film to be handled efficiently on packaging lines. Mann-Pak's centerfolding service starts at a minimum of 12" wide.

Rewinding

Winding slit or inspected material onto new cores to create rolls in the length and diameter a customer's line requires.

Core

The cardboard tube a roll of film or paper is wound on. Three-inch and six-inch cores are common.

Flat Width (Layflat)

The width of a film or folded tube when it lies flat. It is the standard way to specify the width of centerfolded film.

Peelable Seal vs. Lock Seal

A peelable seal opens cleanly by hand, which suits convenience packaging. A lock seal bonds permanently for maximum security.

Shrink Tunnel

A heated chamber that shrinks film tightly around a product as it passes through on a conveyor.

Machinability

How reliably a film runs on packaging equipment without wrinkles, jams, or seal failures.

Run Length / Minimum Order Quantity (MOQ)

The size of a production run and the smallest order a supplier will accept. Mann-Pak accommodates both small runs and large-scale production.

PERFORMANCE & PROPERTIES

Gauge

A unit of film thickness. 100 gauge equals 1 mil, or 0.001 inch. Mann-Pak prints light-gauge films up to 3 mil.

Mil / Micron

A mil is one thousandth of an inch. A micron (micrometer) is one thousandth of a millimeter. One mil equals 25.4 microns.

Barrier Properties

A material's resistance to the passage of oxygen, water vapor, light, and aromas. The right barrier protects freshness and flavor.

Oxygen Transmission Rate (OTR)

The amount of oxygen that passes through a material over time. Lower OTR helps protect oxygen-sensitive foods.

Shelf Life

The length of time a product stays safe and at acceptable quality. Packaging barrier, seal integrity, and storage conditions all influence it.

Puncture / Abuse Resistance

A film's ability to withstand sharp edges, handling, and transport without tearing or puncturing. Abuse-resistant shrink film grades are made for products with sharp or irregular shapes.

Clarity, Haze & Gloss

Clarity describes how clearly you can see through a film, haze is the cloudiness, and gloss is surface shine. Together they determine how appealing the product looks on the shelf.

Shrink Ratio (Free Shrink)

The percentage by which a film shrinks in each direction when heated without restriction. It helps determine the right film for a product's size and shape.

Grease Resistance

A material's ability to hold out oils and fats so they do not stain or pass through the package. A key reason glassine is used for baked goods and confections.

QUALITY & SUSTAINABILITY

Safe Quality Food (SQF)

A globally recognized food safety and quality certification program. An SQF-certified packaging supplier has been audited against rigorous standards for safety, traceability, and quality control. Mann-Pak is SQF Certified.

Food-Contact Compliance

Packaging that touches food must meet applicable regulations, such as FDA requirements in the United States. Always confirm compliance for your specific application.

Biodegradable

A material that can be broken down by microorganisms over time. The time frame and conditions vary widely, so ask suppliers for specifics.

Recyclable

A material that can be collected, processed, and made into new products. Actual recyclability depends on local collection and processing programs.

Request for Quote (RFQ)

A formal request asking a supplier to price a specific packaging project. Helpful details include material, dimensions, print colors, quantities, and delivery needs.

Where These Terms Show Up at Mann-Pak

Service	What it is	Learn more
Flexographic Printing	Central impression 8-color presses up to 48" wide; light-gauge films up to 3 mil; paper up to 50 #.	mannpak.com/services/flexo-printing/
Slitting	Roll-to-roll wide and narrow web slitting; widths down to 2" on 3" and 6" cores.	mannpak.com/services/slitting/
Toll Converting	You supply the material; Mann-Pak prints, slits, winds, or centerfolds it.	mannpak.com/services/toll-converting/
Centerfolding	Precision folding for flexible packaging films, minimum 12" wide.	mannpak.com/services/centerfolding/
Print Design Consulting	Artwork, color, material, and production guidance to help packaging print correctly.	mannpak.com/services/print-design-consulting/
Shrink-Link	Printing and folding of low-gauge polyolefin shrink films.	mannpak.com/shrink-link/

Markets served include candy, bakery, produce, dairy, snacks, poultry and meat, and light industry. Products include shrink films, overwrap and lidding films, layer board, glassine papers, bundling films, and specialty high-barrier products.

Have a packaging project in mind?

Tell us what you need and we will help you choose the right materials, print, and converting options.

Request a quote: www.mannpak.com/request-quote

Call: 1-800-486-6277 | 410-298-6520

Visit: 9601 Pulaski Park Drive, Suite 401, Baltimore, MD 21220