



## Flexible Packaging Terms

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<b>3-side Seal Pouch</b>	Any bag made which has been heat sealed on 3 edges.
<b>Anilox</b>	An ink roller used to control the amount of ink transferred onto substrate during line screen printing. Anilox rollers are often referred to by the number of lines, or divots, on the roll. Higher line counts mean smaller divots, which transfer less ink onto the substrate.
<b>Back Seams</b>	<p>A seal in a bag which runs down the middle of the back, in machine direction. Many back seams, such as fin seals and lap seals, are made by form fill and seal machines.</p> <p><b>Fin seals</b> are created when the inside edges of the substrate are bonded, leaving the seam standing out from the package.</p> <p><b>Lap seals</b> are made when two layers of substrate overlap, forming a bond with no material standing out from the package.</p>
<b>Bond Strength - Seal Strength</b>	A lamination term referring to the integrity of a connection between 2 or 3 materials that are bonded together. Also known as a "destruct bond" where the strength means the materials will break before the seam does.
<b>Bottom Seal</b>	A bond between two layers of polyethylene made by a heated bar (element) which does not separate the bag from the roll. The placement of this seal is determined by the machine and printing direction. Bottom sealed bags are separated by a guillotine type knife which leaves one half inch of unsealed material at the bottom of the bag.
<b>Cellophane</b>	While most people use this term to refer to any thin, clear packing material, "Cellophane" is actually a specific material made from wood pulp.
<b>COF</b>	Coefficient of Friction - Important in ensuring materials pass through machines smoothly. Often important in Form Fill and Seal machines, where material not traveling properly can indicate a lack of maintenance on the machine.
<b>Core</b>	The paper core, with a diameter between 3 and 6 inches, on which bags or packaging material is wound during manufacture.
<b>Crimp Seal</b>	A sealing process which uses scribed heating elements to bond substrates, such as the end seals of potato chip bags.
<b>Cure</b>	In lamination, the amount of time an adhesive between two substrate layers takes to stabilize and dry.
<b>Eyemark</b>	These small, black lines are typically placed on the edge of the web, repeating throughout the length of the roll precisely in the same spot in relation to the printed design. Eyemarks are detected by a photocell on the machine.
<b>Flavor and Aroma Barrier</b>	The ability of a packaging material to provide a barrier to flavours and aromas, often linked to its Oxygen Transfer Rate (OTR).
<b>Form Fill and Seal Machine</b>	<p>Machines that form packages and fill them with product in one step.</p> <p><b>FFS</b> machines can be oriented either vertically (<b>VFFS</b>) or horizontally (<b>HFFS</b>).</p>
<b>Gas Flush</b>	A procedure used in food packaging where gas is used during the packing process to evacuate oxygen and moisture before the package is sealed. This prolongs product shelf life.
<b>Gauge - Mil</b>	Interchangeable terms referring to the thickness of a substrate material.
<b>Line or Spot Printing</b>	Image printing using a set of premixed inks for each colour required in the design.

<b>Line Screen</b>	A count used to describe the concentration of dots in an image over a specific area, such as DPI - Dots per Inch. A higher line screen count results in a higher quality image.
<b>Machine Direction</b>	Describes the direction a film travels through a machine during processing, often used to decide the direction an image is printed on the film, and where cuts and seals are to be made.
<b>OD - ID</b>	Outer Diameter (OD) and Inner Diameter (ID) are often used to describe either the size of a roll's core, or the size of the complete roll. ID commonly refers to the inside measurement of a package, either with or without the width of the seals included.
<b>OPP - BOPP - CPP</b>	Oriented Polypropylene (OPP) - A term used to describe polypropylene which is stretched in the machine direction, creating properties desirable in certain food processing situations. Biaxially Oriented Polypropylene (BOPP) - Material which has been stretched in both machine and transverse direction, creating properties desirable in certain food processing situations. Cast Polypropylene (CPP) - Inexpensive, un-stretched material with very limited barrier qualities, not often used for food packaging.
<b>OTR</b>	Oxygen Transfer Rate - Describes a material's barrier abilities against oxygen. This is particularly important in food packaging, as oxygen can damage oil and fat molecules, decreasing shelf life of a product.
<b>PE</b>	Polyethylene, a low cost soft flexible material often used as an outer wrap. PE is also used as a sealant layer for laminates, due to its ability to create hermetic seals.
<b>PET</b>	Polyester substrate without coatings
<b>PET - Coated</b>	Polyester substrate coated with PVDC to increase the film's resistance to oxygen and moisture.
<b>PET - Met PET</b>	Metalized Polyester, a PET substrate coated on one side with aluminum. In addition to oxygen and moisture barrier, this coating provides protection against ultraviolet (UV) light, which can damage oil or fat molecules. Met PET is commonly used in food packaging.
<b>Process Printing</b>	A type of printing used to create photographic quality images by combining four primary inks (Cyan, Magenta, Yellow and Black). Other industries refer to this as CMYK printing.
<b>Repeat</b>	A printing term referring to the total length of one printed impression. This measurement is commonly used to determine the size of printing cylinder(s) required to print the image.
<b>Roll Flags</b>	Flags are used to indicate a splice or an area of misprinted images on a roll. These flags alert machine operators where to take action to ensure a smooth packaging process.
<b>Shelf Life</b>	Refers most often to food products where the effective life of the product from the date of packaging is limited. Products beyond their effective date must be removed from inventory shelves.
<b>Side Weld</b>	A process used specifically on polyethylene bags where two substrates are bonded together and separated from the web at the same time by a tapered hot element ("knife").
<b>Slitting / Slitter</b>	A machine used to divide single, large rolls of web into smaller rolls. This is achieved by passing the entire web across cutting knives as it is removed from the larger roll. The divided webs are then rolled onto new, smaller cores. The same process is used to remove excess web from printed output rolls.
<b>Splice / Butt Splice</b>	Rolls of printed product often contain joins where two rolls have been fused, or misprints have been removed. Our protocol limits the number of splices in a single roll as they can cause waste or slow down operations.
<b>Substrate / Film</b>	Any base material (polyethylene, polypropylene or other) used to make a packaging product.
<b>SUP</b>	Stand Up Pouch.
<b>Transverse Direction</b>	Opposite of machine direction - 90 degrees to the direction a film travels through a machine during processing.
<b>Treated</b>	Substrate which is to be printed on must be treated on the printing side by the substrate supplier.
<b>WVTR - MVTR</b>	Water Vapour Transfer Rate / Moisture Vapour Transfer Rate - Describes a material's ability to repel vapour, which can shorten the shelf life of certain products.