Label Terminology
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**ABC**
Anti-Block Coating applied to the back side of the liner to prevent label transfer to the liner back when rolls of labels are unwound. This is generally used with film face stocks or heavy adhesive coat weights.

**Abrasion Resistance**
The degree to which a label surface, including printing and protective coatings, is able to resist rubbing or wearing away by friction.

**Accelerated Aging**
This is a test procedure for subjecting PS label stock to special environmental conditions in order to predict the course of natural aging but in a far shorter period of time.

**Acrylic Adhesive**
PS adhesives based on acrylic polymers. This can be coated as a solvent or emulsion system. This type of adhesive is noted for excellent stability in outdoor exposure.

**Adhesion**
A measurement of the force required to remove a label from a substrate. Several test methods normally characterize this force at various time intervals after application to various substrates.

**Adhesive**
Pressure-sensitive or hear activated coating used to bond the film to the application surface.

**Adhesive Failure**
A partial or total lifting of the label from the substrate. Adhesive, Permanent: A PS adhesive characterized by having relatively high ultimate adhesion. The label either cannot be removed intact or requires a great deal of force to be removed.

**Adhesive Residue**
The adhesive remaining behind on a substrate when a PS label is removed.

**Adhesive Removable**
A PS adhesive characterized by low ultimate adhesion. The label can be removed from most substrates without damaging the surface or leaving a residue or stain.

**Adhesive Transfer**
The transfer of adhesive from its normal position to the surface from which it was unwound. Transfer tapes demonstrate this phenomenon because of the differential release on the release liner.

**Application Temperature**
Temperature of a substrate or label material, at the time the label will be applied. Testing is recommended when approaching minimum application temperature.

**Adhesive Types**
- **Permanent**
  High Adhesion; usually cannot be removed without destroying label.
- **Cold/Freezer Temperature**
  Enables a pressure-sensitive label to adhere when applied to refrigerated or frozen substrates generally +35° F or colder.
- **Textile**
  An adhesive that removes cleanly from fabric. If left on the fabric for extreme periods of time, staining may occur. Should not be used on velvet, furs, suede, leather or plastic.
- **Removable**
  Low adhesion. Usually can be removed from the substrate without pieces remaining on the surface. May cause damage to the surface of some materials. After a period of time or exposure to weather, the removable label will become permanent.
- **Ultra Removable (Repositionable)**
  Adhesive that allows a label to be reapplied in another area and is not limited to the number of times it can be repositioned. Repositionable adhesive does not gain permanency over time.

**Basis Weight**
The weight of a ream of paper. Traditional version is given in pounds per ream. The modern version is given in grams per square meter.

**Bar Code**
A pattern of vertical, bar and spaces which represent characters of data that is readable with optical scanning devices.

**Barcode Verification**
Tests the quality and readability of printed barcodes.

**Biaxially Oriented Polypropylene “BOPP”**
A film which is extended and stretched in both the machine and cross direction. This stretching improves physical properties over non-oriented polypropylene.

**Bleed**
When the printed image extends beyond the trim edge of the labels, it is called bleed.

**Bond Strength**
The amount of force required to separate the joined surfaces.
Butt Cut Labels
Labels separated by a single cross-direction cut to the liner. No matrix area exists between labels. Butt cut labels are not suitable for automatic dispensing.

Continuous Label
Fan-folded labels manufactured form a continuous web of label stock which is not cut into units prior to execution. Continuous labels are mostly used for data processing applications.

Cast Coated
Coated paper dried under pressure against a polished cylinder produce a high-gloss finish to the paper.

Coupon Base
A 2 layered film product with adhesive and protective liner. When used in combination with another pressure-sensitive coated facestock affords the label converter the capability of manufacturing on press a redemption coupon that has a lift tab and is printed on both sides. A clear film remains on the labeled item after the coupon has been removed.

Carrie/Liner (Backing)
Refers to the backing material the pressure sensitive labels are carried on, also known as liner.

Cross Direction (CD)
In paper, the direction across the grain. Paper is weaker and more sensitive to change in relative humidity in the cross direction than the grain direction.

Chemical Resistance
The resistance of a material to the deteriorating effects of exposure to various chemicals under specified conditions.

CSA
Canadian Standard Association.

Coated Paper
General term applying to all papers which have been surface coated with pigments.

De-lamination
The separation of a material into layers, in a direction approximately parallel to the surface. For instance if a facestock was to separate from the liner during processing.

Coupon Base
A 2 layered film product with adhesive and protective liner.

Die
Any of a variety of tools or devices used for cutting material to a desired shape.

Die Cut Label
Pressure-sensitive labels mounted on a release liner from which the matrix has been removed.

Die Cutting
The process of using dies or sharp steel rules to cut any shape for labels.

Die Lines
A hand drawn or computer generated layout of the die cut shape or shapes.

Die Load Monitors
Gauges that indicate the amount of pressure exerted on rotary dies.

Direct Thermal
A specialized printing technology using rapidly heated pins that selectively activate a heat sensitive coating applied to the facestock thus forming the desired image.

Die Cutting
The process of using dies or sharp steel rules to cut any shape for labels.

Conformability
The ability of a PS material to yield or conform to the contours of a curved or rough surface.
**Doctor Blade**
An adjustable knife-like bar which controls the amount of adhesive on the glue wheel.

**Dwell**
The time during which a PS material remains on a surface before test is performed.

**Edge Curl**
The peeling back or lifting of the outer edge of a tape which has been applied in a curve.

**Edge Lift**
The tendency of the edge of a label to rise off the surface of the substrate. This condition occurs most frequently on small diameter curved surfaces. Resistance to edge lift is dependent on the bond strength of the adhesive and the flexibility of the facestock.

**EDM**

**Electronic Data Processing E.D.P**
Data processing by electronic equipment. Pressure sensitive labels produced for imprinting on this equipment incorporate line hole punching and perforations.

**Elongation**
The increase in length of a material produced by extending it to the point of rupture.

**Embossing**
Impressing an image in relief to achieve a raised surface; either overprinting or on blank paper (called blind embossing).

**Emulsion Adhesive**
An adhesive in which a polymer resin is dispersed in water. These adhesives are more environmentally friendly than solvent base adhesives.

**Exposure Temperature**
The temperature that a labeled product is exposed to.

**Extrude**
To expel or force through a measured orifice to apply a molten thermoplastic adhesive onto a web.

**Facestock**
Film or other specialty paper, fabric, membrane to which the topcoat and adhesive are anchored. Carries graphics to the application surface. Functions as a protective laminate. Provides a barrier to moisture or vapor. Functions as a spacer material in a layered construction.

**Face Slit**
A slit in the face material of a pressure sensitive product to facilitate removal for the liner/carrier.

**Fan Fold**
Sometimes referred to as Zigzag fold. The put-up of pressure sensitive labels on a continuous backing in such a way as to form a flat pack as different from roll form.

**FDA**
Food and Drug Administration. Regulations for PS applications apply to the following area: (1) Direct food contact, such as labeling of fruit and vegetable with an edible skin; (2) Indirect food contact, where incidental between an adhesive and a food may be possible. Facestock: (1) Contact between paper and dry foods; (2) Contact between paper and aqueous and/or fatty foods.

**Film**
Acetate, polyester, polyethylene vinyl and other polymeric face material, manufactured from synthetic high molecular weight polymers.

**Finish**
The surface property of a paper or film determined by its texture and gloss. A gloss finish, for example, can be shiny and highly reflective, while a matter finish is generally dull and reflects little light.

**Flammability**
Measures the ability of the label to resist flammability or burn at a specified rate.

**Flame Resistant**
The ability of a tape to withstand exposure to a flame. Flame resistant (fire-retardant self extinguishing) materials will burn when exposed to flame, but will not continue to burn after the flame is removed. Burning rate, smoke density, toxicity of fumes and melt drippings are important factors in assessing flame resistance.

**Flexographic Printing**
A method of rotary printing which employs flexible plates, rotary die cutting, rapid-drying inks, in-line lamination and other converting operations.

**Fluid Immersion**
Tests the ability of the label to resist the effects of a wide variety of chemicals.

**Fogging**
Tests the ability of the label to maintain a specified gloss level under the influence of fog and moisture.
Four-color process
The process of reproducing full printed images. The image must be converted to a set of halftone screened negatives which are a series of dots of various sizes. A halftone negative is made for each of the separate color components of the image (cyan, magenta, and yellow, black). These color separations are made into printing plates, one for each color and when printed, the overlapping dots of the color components reproduce a full color image.

Gravure Printing
A printing process that employs minute engraved wells. Deeply etched wells carry more ink than a raised surface, hence print darker value shallow wells are used to print values. A doctor blade wipes excess ink from the cylindrical printing surface.

Heat Activated
To soften a dried thermo-plastic adhesive film to a sticky stage by application of heat. After bringing the adhesive to its melting point, the process of bonding can then take place.

Heat Aging
This is a controlled environment to provide an indication of any deterioration of an end use or finished product.

Heat Resistance
This is the property of a material which inhibits the occurrence of physical or chemical changes caused by exposure to high temperatures.

High Temperature Application
Typically this is when an adhesive that will enable a PS label to withstand sustained elevated temperature (+200 degrees F or higher).

Hot Melt
A pressure-sensitive adhesive applied to the liner or backing in a hot molten form which cools to form a conventional pressure-sensitive adhesive.

Hot Stamping
A decorating process in which the desired image is transferred to a substrate by a heated, positive copy die. Images are normally limited to one color positive copy line.

Impregnated Paper
This is a general term for soft porous papers which are to be or impregnated with solutions or compounds of various types.

Impression Cylinder
In printing, the cylinder on a printing press against which paper picks up the impression from the inked plate in direct printing, or the blanket in offset printing.

Initial Tack
Adhesives usually have two adhesive stages: 1) Initial tack at which time it is sticky enough to hold parts together; (2) Set at which point the adhesives has firmly bonded them.

Ink Jet
A method of printing using liquid ink projected a drop at a time against a substrate.

Label
The functional portion of a pressure-sensitive construction comprising the face sheet and adhesive, die cut into various shapes.

Laminate
A web material formed by bonding two or more materials together.

Laser Printing
A non-impact electrophotographic process utilizing a laser beam to scan the surface of the drum creating a latent image which attracts toner. The toner is then transfer fused into the print surface.

Latex Paper
Impregnated Paper / Saturated Paper. Paper manufactured by two major processes: 1) the latex is incorporated with the fibers in the beater to formation of the sheet; 2) a performs web of absorbent fiber is saturated with properly latex. The papers are characterized by strength folding endurance, resistance to penetration by water, flexibility durability and resistance to abrasion.

Lay Flat
Typically refer to a liner or the entire construction of a label material that is good for sheeted applications, or has good non-curling characteristic.

Lexan
This is a registered trademark of the General Electric Company for polycarbonate film material. This comes in velvet embossed and a gloss finish.

Liner
Supports the product through manufacturing and life of use. Protects adhesive until it is applied to the end use surface.

Matte Finish
A dull finish. A deglossed surface.

Metalized Film
A plastic or resinous film that has been coated on one side with a very thin layer of metal. This is usually a vacuum metalized processed film.

Mils
Used in describing the thickness of films, adhesive, liners, or the entire material construction. The term means thousandths of an inch. (2 mils = .002”)

Whitlam Label Company, Inc.
A Provider of Engineered Solutions
Minimum Application Temperature
The lowest temperature at which an adhesive will function.

MSI
Abbreviation for one thousand square inches. This is a unit of measurement that label material is purchased and sold in (1,000 S.I.)

Mylar
This is a registered trademark of the DuPont Company for polyester film material.

Offset Printing
A process of indirect printing in which an impression of type or a design on a flat plate is printed on a rubber blanketed cylinder from which it is impressed.

Oozing
A “squeezing out” of the adhesive from under the backing, occurring when the tape is in roll form, the edges of the roll become tacky.

Opacity
That property of a paper or film which prevents “show through” of dark printing on or in contact with the backside of the sheet. This is opposite of transparency.

Opaque Ink
An ink that conceals all color beneath it.

Overlaminating
This is an application of clear film to a graphic for the purpose of protection or to enhance the graphic quality.

P.C.W
Post Consumer Waste.

Peel Adhesion
Adhesion strength. Peel adhesion is the force required to move a pressure-sensitive label from a standard test panel at a specified angle and speed after the label has been applied to the test panel under specified conditions.

Peel Strength Testing
Tests the amount of force required to remove a label from a wide variety of surfaces.

Perforation
Series of small cuts made in labels and/or their release liner to facilitate tearing along a predetermined line.

Permanent
A PS adhesive characterized by having relatively high ultimate adhesion. The label either cannot be removed intact or requires a great deal of force to be removed.

Pigment
In printing inks, the fine solid particles used to give color, body or opacity.

Pin Feed
Evenly spaced holes that are punched into the left and right margins of a continuous form, used at the collator to guide the paper through and align each part.

Plastic
One of many high-polymeric substances, including both natural and synthetic products, but excluding the rubbers. Plastic is capable of flowing and pressure or tensile stress, if necessary, into the desired final shape.

Plasticizer Softener
A substance added to materials to impart flexibility, workability and elongation.

Plasticizer Migration
Loss of plasticizer from an elastomeric compound such as vinyl that is absorbed into the adhesive. The result is a softening of the adhesive to the point of adhesion failure. Plasticizer can also migrate to the surface of a material and adversely affect top coats.

Plate Cylinder
The metal cylinder of a press on which the plate is mounted.

Polyester
A strong film having good resistance to moisture, solvents, oils and many other chemicals. It is usually transparent.

Polyethylene
An extruded, tough stretchy film having limited temperature resistance but good moisture barrier properties.

Polypropylene
A polyolefin plastic similar in properties to polyethylene but with higher temperature capability and greater strength.

Polystyrene
A water-white or clear thermoplastic produced by the polymerization of styrene. The electrical insulation properties of polystyrene are outstandingly good and the material is relatively unaffected by moisture. This film has limited temperature resistance and tears easily.

Polyvinyl Chloride
A versatile resin with good resistance to water, fire, and some acids. This can be made into a film that comes in clear and opaque white. It can be rigid, hard, and flexible.
Label Terminology Cont.

**Pre-mask**
(Application tape, transfer tape) Pressure-sensitive tape used to transfer a cut graphic from its liner to the substrate.

**Pressure-Sensitive**
A term used to designate a distinct category of adhesive which, in dry (solvent free) form, is aggressive and permanent or removable at room temperature and adheres to a variety of surfaces without the need of more than finger or hand pressure. Requires no activation by water, solvent or heat and has sufficient cohesive strength so it can be handled with the fingers.

**Prime Label**
Labels acts as the main identification of a product. Often designed to attract attention and contains information to appeal to a buyer and is usually applied at the time of its manufacture.

**Register**
The exact corresponding placement of successively printed and/or successively die-cut pressure-sensitive labels.

**Release**
The force required to remove the release liner from the facestock at a specified speed and angle.

**Release Liner**
The portion of the label that receives the release coating. Prior to application, it protects the adhesive and provides support for the facestock during the die cutting operation and allows the label to be transported to a label, applicator or through a computer printer.

**Removable Adhesive**
A pressure-sensitive adhesive characterized by low ultimate adhesion to a wide variety of surfaces that can be removed without damage to either the label or the substrate.

**Residue**
Adhesive left on a substrate when a label is removed.

**Rewinder**
A machine which takes rolls from the winder, slits or rewinds into smaller rolls.

**Roll Labels**
Pressure-sensitive labels that are produced in a continuous roll form.

**Rubber Base Adhesive**
A pressure sensitive adhesive based on natural or synthetic rubbers.

**Salt Spray Testing**
Tests the ability of the label to resist the influences of salt and water as would occur on the exterior of an automobile.

**Score**
To make an impression or a partial cut in a material, for the purpose of bending, creasing, folding or tearing.

**Screen Printing**
Method of printing in which the ink is forced through a design on a tout screen and onto the object to be printed. This process results in a heavy ink deposit that provides excellent outdoor durability.

**Self-Wound Over Lamination**
This is typically a clear film with adhesive on one side, and no liner. This is a lower cost alternative to liner over laminations. Sometime there is a release coating on the top side of the film to allow for smooth and easy unwinding.

**Service Temperature**
The temperature range that a PS label will withstand after a 24 hour residence time on the substrate. The range is expressed in degrees Fahrenheit.

**Shear Adhesion**
The time required, under specified test condition, to slide a standard area of pressure-sensitive label, from a standard flat surface in a direction parallel to the surface.

**Shear Strength**
Internal or cohesive strength of the adhesive.

**Shear Test**
A method of separating two adhesive bonded materials by forcing (either by compression or tension) the interfaces to slide over each other. The force exerted is distributed over the entire bonded area at the same time. Strengths are recorded in pounds per square inch.

**Sheeting**
Process whereby rolls of pressure-sensitive base stock are converted into sheets of finished labels by cutting them to the desired length in the sheeting stations on a rotary press.

**Shelf Life (Storage Life)**
The period of time during which a product can be stored under specified conditions and still remain suitable for use (normally one year).

**Silicone**
A unique polymer system which can be a very effective release coating, or pressure-sensitive adhesive capable of functioning effectively at extreme temperatures.

**Slitter**
A sharp disk which cuts paper into pre-determined widths. Substrate: The surface to which the finished label is applied.
Spot Color
Refers to a method of specifying and printing colors in which each color is printed with its own ink. In contrast to process color printing which uses four inks (cyan, magenta, yellow, and black) to produce all other colors.

Static Cling
An induced property of a film which enable it to grab onto a smooth clean surface without using a pressure-sensitive adhesive. Static Cling is a phrase applied to grabbing by electrical static.

Subsurface Printing
Printing on the underside of a clear film then laminate a layer of transfer adhesive to the printed side of film. This is a very durable construction.

Tack
Quick adhesion. The property of a pressure-sensitive label which causes it to adhere to a surface instantly with a minimum of pressure and contact time as measured by TLM Tester or equivalent equipment.

Tag
A label attached to a product without the use of an adhesive.

Tamper-Evident Label
A pressure-sensitive construction made of materials which will partially destruct upon removal, indicating that a package, label, or container has been tampered with.

Tape Test
Tests the ink adhesion to any given label material.

Tear Strength Test
Tests the strength of the label material and its ability to resist tearing.

Tensile Strength Test
Tests the strength of the label material under the influence of bending and stretching.

Thermal Cycle
(Oven, Freezer, or Humidity)
Thermal Cycle Tests the ability of the label to stand up to various environmental conditions in a cyclical format.

Thermal Transfer Ribbon Testing
Tests the adhesion and quality of thermal transfer ribbon to any given label material.

Tooling
Rotary dies used to cut out shapes of label.

Topcoat
A physical, surface coating, applied to promote or increase ink adhesion with conventional and digital print technologies, or to modify gloss.

Tyvek
This is a registered trademark of the DuPont Company for a spunbond polyolefin material.

U.L.
Underwriters Laboratories.

U.V. Resistance
The ability of any material, or ink to withstand extended exposure to sunlight or ultraviolet light without degradation, discoloring, fading, or discoloration.

Varnish
A thin, liquid protective coating, either matter or glossy, that is applied to the product. It adds protection and enhances the appearance of the product. It can be applied as an all over coating or it can be applied as a spot coating.

Vinyl
A film that is highly durable and resistant to chemicals and moisture. It is high in conformability excellent for outdoor use.

Weatherability
The ability of a label to withstand the effects of outdoor weathering, sunlight, heat, cold, humidity, rain, snow, and time.

Wind Direction
Position of the printing as it comes off the finished roll.

Xenon
Tests the ability of the label to endure ultraviolet exposure without fading.