

**2 of 5:** A one-dimensional, discrete, variable-length, numeric-only symbology in which each digit is represented by five bars, two of which are wide. Spaces are only used to separate bars, and carry no additional meaning in this symbology. (See also Interleaved 2 of 5).

**3 of 9:** (See Code 39.)

**Abrasion resistance:** Label surface resistance to something that rubs against it, including the label material itself, ink, or a protective coating.

**Accordion fold:** two or more parallel but opposing folds which open like an Accordion or Concertina.

**Acetate:** A transparent sheet or label

**Adhesive bleed:** The adhesive migration from pressure sensitive material and labels.

**Adhesive lamination:** A laminating process in which individual layers of multi-layer packaging materials are laminated to each other with an adhesive.

**Adhesive permanent:** A pressure sensitive adhesive characterised as having relatively high ultimate adhesion to a wide variety of substrates. The label either cannot be removed intact or requires a great deal of force to be removed.

**Adhesive removable:** A pressure sensitive adhesive characterised by low ultimate adhesion. The label can be removed from most substrates without damaging the surface or leaving adhesive residue or stain.

**Adhesive water Based:** A pressure sensitive adhesive derived from water based materials.

**Adhesive water soluble:** A pressure sensitive adhesive in which all components are water soluble.

**Against the grain:** 'Paper' is made up of fibres aligned in one direction (the grain). Against the grain means at right angles to the grain direction of the paper.

**Alignment:** The relative position of a scanner or light source to a bar code.

**Alphanumeric:** A character set made up of digits and letters of the alphabet.

**Ampoule:** A glass container filled with medication and closed with a rubber stopper.

**Ampoule:** A single dosage container made from glass sealed after filling by fusing the glass neck.

**ANA (UK):** Article Numbering Association.

**Ascender:** The parts of lowercase letters that rise above the x-height of the font, e.g. b, d, f, h, k, l, and t.

**ASCII:** American Standard Code for Information Interchange (a computer code consisting of 128 alphanumeric and control characters used for the exchange of information between computerised systems).

**Aseptic packaging:** a system in which the product is sterilised before filling into pre-sterilised packs under aseptic conditions.

**Aseptic:** Sterile

**Aspect ratio:** The ratio of height to width of a bar code symbol. A code twice as high as wide would have an aspect ratio of 2; a code twice as wide as high would have an aspect ratio of ½ or 0.5.

**Auto discrimination:** The ability of a bar code reader system to distinguish automatically between two or more symbologies.

**Back splits:** Linear cuts put in the liner during the coating process, or while on-press, to meet specialised end use requirements.

**Background:** The area surrounding a printed symbol.

**Backing pad:** The silicon backing material used behind the substrate when printing with hot foil or thermal transfer technology.

**Bar length:** The bar dimension perpendicular to the bar width.

**Bar width Reduction:** Reduction of the nominal bar width dimension on film masters or printing plates to compensate for printing gain.

**Bar width:** The thickness of a bar measured from the edge closest to the symbol start character to the trailing edge of the same bar.

**Bar:** A dark element of a printed bar code symbol, usually formed by the inked area over a light background. (See Space and Reversed Bar Code.)

**Barcode character:** A group of bars and spaces within a bar code that represent a single letter, number or character.

**Barcode density:** The number of characters that are represented in a bar code per unit of length (characters per inch, cpi).

**Barcode density:** The number of characters that can be represented in a linear inch. (See also Density).

**Barcode reader:** A device used to capture the data encoded within a bar code and convert it into

**Barcode reader:** A device used to identify and read a bar code symbol.

**Barcode/Barcode symbol:** A specific pattern made of lines (or bars) and spaces, of varying width, which represent alpha or numeric data in machine-readable form. The most general format for a bar code consists of: a lead margin, a start character, data or message characters, a stop character, and a trailing margin. There are over 30 bar code symbologies.

**Baseline:** The line on which the bases of letters sit.

**Batch code:** Combination of characters that facilitates tracing of the product to the batch in which it was processed (see LOT).

**Bi-directional read:** The ability to read data successfully whether the scanning motion is left to right or right to left.

**Bi-directional symbol:** A bar code symbol that permits reading in complementary (two) directions.

**Bingo card:** A blister pack sealed into a fold-over card.

**Bitmap:** A grid of pixels or printed dots generated by computer to depict photographs and images. TIFF, JPEG, GIF are examples of bitmaps.

**Black (font):** A font that has more weight than the bold version of a typeface.

**Blind emboss:** A raised impression made without using ink or foil.

**Blister pack:** A piece of thermoformed material bonded to flat material to form a closure (lid). A unit dose package commonly constructed from a formed cavity containing one or more individual doses.

**Blister packer:** a system to fill, lid and seal blister packs.

**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.

**Blown-on labels:** A method of label application that uses air pressure to remove the label from the carrier and position it on the substrate.

**Board:** Paper of more than 200gsm.

**Body size:** (Typesetting) the height of the type measured from the top of the tallest ascender to the bottom of the lowest descender. Normally given in points, the standard unit of type size.

**Butt-cut labels:** Rectangular, square-cornered labels in continuous form that are separated by a single knife cut to the liner. Typically, the matrix is not removed.

**Calendar Blister:** A blister package designed to facilitate a patient's memory by incorporating the day/time that each dose is to be taken into the package design.

**CAN:** Cast nylon film (see Nylon). Used mostly for thermoformable packaging applications.

**Cap height:** In typography, the distance from the baseline to the top of the capital letters.

**CAPP or CPP:** Cast PP film, (see PP). Unlike OPP, it is heatsealable, but at much higher temperatures than LDPE, thus it is used as a heatseal layer in retortable packaging. It is, however, not as stiff as OPP film. (PP = polypropylene)

**Capsule:** Solid dose medication filled into gelatine halves and pushed together; easy to swallow.

**Carton blank:** An unglued carton, which is glued during the filling process.

**Carton:** A container made from folding boxboard and supplied flat for erection when filling.

**Cartonboard:** Material of defined substance and thickness made from one or more layers of paper to form a rigid or semi-rigid sheet.

**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.

**Cavity wall:** A carton or fitment where the sidewalls are constructed so as to form a hollow frame effect.

**CD (Charge-Coupled Device):** A type of reader (named for the technology it uses to detect light) that can electronically "scan" reflected light from a bar code signal without the need for mechanical moving parts.

**Character:** a single group of bars and spaces that represent an individual digit, letter, or punctuation mark (a single keystroke on a computer keyboard).

**Character:** Any letter, figure, punctuation, symbol or space

**Chase:** A metal frame in which metal type and blocks (engravings) are locked into position to make the format to be printed. (See typeholder)

**Check character (check digit):** A character calculated from the numerical value of the other characters in the code that is used to ensure that the code is correctly processed.

**Chevron pouch:** A pouch where one end seal is in the shape of a chevron (like sergeants stripe).

**Clear area:** (See Quiet Zone.)

**Closed system:** In the context of bar code systems, a system installed for a specific customer that is only used internally by that customer. A closed system is typically intended to meet only the individual customer's requirements and, therefore, is not subject to industry or governmental standards governing symbology, formatting, etc. (Contrast with Open System.)

**CMYK:** Shorthand for the colours used in 4-colour process printing. Cyan, Yellow, Magenta and Black, which combined together in varying proportions, can be made to produce the full colour spectrum.

**Coat weight:** The amount or weight of coating per unit area. This is expressed in various units including grams per square meter or pounds per ream. Applies to adhesives, primers, varnishes, and lacquers.

**Coated:** Paper that has received a coating to achieve a special finish.

**Codabar:** A one-dimensional, discrete, variable-length symbology capable of representing the entire ASCII character set, and containing special compression techniques for efficiently coding sequences of numeric digits. Code 128 was specifically designed at the time to provide higher density (for a given X dimension) than most other codes.

**Code 128:** A one-dimensional, continuous, variable-length symbology capable of representing the entire ASCII character set, and containing special compression techniques for efficiently coding sequences of numeric digits. Code 128 was specifically designed at the time to provide higher density (for a given X dimension) than most other codes.

**Code 16K:** A stacked, two-dimensional symbology based on the same principles as Code 128, but designed for high-density printing and small label size requirements. A Code 16K symbol contains two to sixteen rows, separated by horizontal lines (to detect accidental scanning out of one row into the next).

**Code 39 (3 of 9):** A bar code symbology that encodes 43 data elements (0-9, A-Z and 7 special characters). Each character has 9 elements, bars have two widths.

**Code 39:** A one-dimensional, discrete, variable-length symbology capable of representing the digits 0-9; the letters A-Z; and the punctuation marks -, ., \*, \$, /, +, %, and a blank space. Sometimes called 3 of 9 because every data character is made up of nine elements, three of which are wide.

**Code 49:** A stacked, two-dimensional symbology designed of high-density printing and the labelling of small items. A Code 49 symbol contains two to eight rows, separated by horizontal lines (to detect accidental scanning out of one row into the next). The basic character set of Code 49 is similar to that of Code 39, and a related doubling technique is used to represent the full ASCII character set. A highly sophisticated compression scheme also allows very compact encoding of runs of numeric digits.

**Code 93:** A one-dimensional, continuous, variable-length symbology, which represents essentially the same data as Code 39 (including a full-ASCII option), but with higher density (for a given X dimension).

**Coextrusion:** Simultaneous extrusion of two or more different thermoplastic resins into a sandwich-like film with clearly distinguishable individual layers.

**Cohesion:** The internal strength of a pressure sensitive adhesive, its resistance to cold flow, and its resistance to failure (or splitting) when labels are removed or placed under stress.

**Cold Seal:** A pressure sensitive adhesive coating on plastic films or laminates that will allow the packages to be sealed by application of pressure (with no heat or minimal heat).

**Concertina fold:** A method of folding in which each fold opens in the opposite direction to its neighbour, giving a concertina or pleated effect.

**Condensed font:** A font in which the set-widths of the characters is narrower than in the standard typeface.

**Contact reader:** A bar code reading device that must be placed in contact with the bar code in order to scan and decode it. (Manual devices that must be placed within a fraction of an inch of the bar code are also commonly referred to as contact readers.) (Contrast with Noncontract Reader.)

**Contaminants:** Any unacceptable or unintended trace materials.

**Continuous Code:** A bar code symbology in which trailing space widths are part of the character patterns, and therefore may not vary. (Contrast with Discrete Code.) Continuous codes are normally printed from static film masters or with programmable printing devices (thermal transfer, ink jet, laser printer, etc.) and not with mechanical numbering wheels.

**Core/Core Size:** Refers to the inside diameter of the core in a roll of labels or foil.

**Corrugated board:** Board consisting of one or more fluted sheets between flat facing plies.

**Crashlock base:** A carton where the base locks in place automatically when pressed from opposite corners.

**Creep:** The lateral movement of a pressure sensitive label on a surface due to low cohesive strength.

**D.p.i.:** Dots per inch; a measure referring to dot resolution in images created by inkjet, laser, and thermal printers and imprinters.

**Deboss:** Condition in which an image is depressed below the normal surface of a material. Embossing has the opposite effect, creating a raised image.

**Density:** the amount of information that can be represented in a given areas of a form, document, or label. Density may be specified directly (as in "5.5 characters per inch") or indirectly for a given symbology (as in Code 39 at 2.5-to-1 with an X dimension of 7.5 mils").

**Depth of field:** The range between the maximum and minimum distance from which a symbol can be read.

**Descender:** In typography, the part of the letterform that dips below the baseline; usually refers to lowercase letters and some punctuation, but some typefaces have uppercase letters with descenders.

**Dial-pack:** Commonly used for oral contraceptives, this type of package utilises a calendar design such that a dial must be turned each day to remove a tablet.

**Die (1):** The tool or device used for cutting a desired shape, form, or finish from a given material.

**Die cut:** The actual shape of a printed product made by the cutting edge of a die.

**Die:** A engraved character/stamp used to print an 'inked' image.

**Die-cutting:** Process of using sharp metal rules on a wooden block to cut out specialised shapes such as pocket folders or unusual shaped flyers etc.

**Direct thermal printing:** A thermal transfer printer has a printhead containing many small resistive heating pins that on contact burn dots onto special coated paper. A microprocessor determines which individual heating pins are heated to produce the printed image.

**Discrete code:** A bar code symbology in which each character begins and ends with a bar element. The space separating the end of one character from the beginning of the next character (intercharacter gap) is not held to the same tolerances as the spaces within a character, and may usually "float" slightly without affecting the readability of the code. Therefore, continuous codes may be printed on press using mechanical numbering wheels.

**Dot matrix printer:** A printer in which each character is formed from a matrix of dots. They are normally impact systems, i. e. a wire is fired at a ribbon in order to leave an inked dot on the page.

**Double tuck carton:** carton in the form of a sleeve, with extended side flaps that tuck in to form the end closures.

**Downloadable fonts:** Type faces which can be stored on a disk and then downloaded to the printer when required for printing. These are, by definition, bit-mapped fonts and, therefore, fixed in size and style.

**Doyn-Style Stand-up Pouch:** A stand-up pouch that has seals on both sides and around the bottom gusset.

**Dry peel:** A label construction in which two materials are bonded together with a dry adhesive. The top ply of the construction can be removed with no adhesive residue. the bottom ply is typically made of a clear material, so the substrate can be seen through it. A common use of this label construction is for instantly redeemable coupons or for promotions.

**Duplex board:** A multi-ply board mainly made from mechanical pulp with a bleached chemical pulp facing layer.

**Dwell/Dwell time:** The time during which a hot foil (hot stamp), embossing head, or thermal die remains in contact with the surface of a material during printing.

**EAN:** The European Article Numbering code, the international standard symbology for retail packaging. EAN is a one-dimensional, continuous, numeric-only, fixed-format code. EAN is a "superset" based on the same design principles as UPC; EAN scanners can typically read UPC codes, but not visa versa. As with UPC, there are several defined formatting options; the most common are EAN-8 and EAN-13.

**EAN-13:** Full 13-digit version of the International Article Number.

**EAN-8:** Short form, 8-digit version of the International Article Number.

**Edge lift:** The tendency of the edge of a label to rise off the substrate. This condition occurs most frequently on small diameter, curved substrates. Resistance to edge lift is dependent on the bond strength of the adhesive and the flexibility of the face material.

**Element:** An individual bar or space in a bar code.

**Emboss:** A condition in which an image is pressed into a material to create an image that is raised above the normal level of the material, images are formed by using a recessed die. Debossing creates the opposite effect.

**Encapsulated Ink:** Ink encapsulated in a material surface coating which can be activated by heat or pressure.

**Encoded area:** The total linear dimension consumed by all characters of a code pattern, including start/stop codes and data.

**Expanded (font):** A font in which the set widths of the characters are wider than in the standard typeface. (Note: not the inter-character space - that is accomplished through letter spacing - but the characters themselves).

**Expanded type:** In typesetting, a typeface with a slightly wider body giving a stretched appearance.

**Expiry date:** Expiry (EXP) Date Nov 2009 means do not use this product after November 2009.

**Extraneous ink:** Ink in a scan area not intended to be there, e.g., tracking and splatter.

**Face cut label:** A die cut or square cut label from which the matrix, or waste between labels, has not been removed.

**Face material/Face stock:** Any paper, film, fabric, foil, or plastic material suitable for converting into pressure sensitive labels. In a finished construction, the face material is bonded to an adhesive layer and carried on a liner. It is the functional part of the construction.

**Fan-fold/Fan-folded labels:** Labels on a continuous backing that is perforated, then folded back and forth along the perforations, so as to create a flat pack.

**FFS: Form Fill Seal,** a system where packs are formed (typically from film or foil), filled and closed in one continuous operation.

**Film master:** A photographic film representation of a specific symbol from which a printing plate is produced.

**Film:** A non-fibrous, non-metallic flexible material available in a range of thickness.

**First read rate:** The percentage representing the number of successful reads per 100 attempts to read a particular symbol.

**Fixed-format code:** A symbology (or format option within a symbology) that specifies position and length for the data to be represented. For example, a UPCA symbol contains exactly twelve digits: one digit for "symbol system" (product type), five digits for manufacturer identification, five digits for product identification (within that manufacturer's product line), and one digit used as a check character, (Contrast with Variable-Length Code.)

**Flexography:** A rotary letterpress process printing from rubber or flexible plates and using fast drying inks. Mainly used for packaging.

**Floating accent:** In typesetting, an accent mark that is set separately from the main character and is then placed either over or under it.

**Foil (1):** A thin gauge (0.000285 – 0.0005 inches / 6-12 microns) aluminium foil laminated to plastic films to provide maximum oxygen, aroma and water vapor barrier properties. Although it is by far the best barrier material, it is increasingly being replaced by metallized films, (see MET-PET and MET-OPP) because of cost.

**Foil (2):** Thin gauge aluminum, typically 20-25 micron, used as a push-through lidstock available as hard tempered and soft. Can be printed on two sides in multicolor.

**Foil blocking:** A process for stamping a format onto a substrate without ink by using a coloured foil with pressure from a heated die or block. (See foil stamping)

**Foil emboss:** Foil stamping and embossing a image a substrate with a die.

**Foil stamping:** Using a die to place a metallic or pigmented image onto a substrate. (See foil blocking).

**Foil:** Rolled metal in flexible sheet form. Typically this is aluminium sheet, available in a range of thickness.

**Font (or fount):** A complete set of characters in a typeface. Some software systems use the term "font" to refer to an entire typeface/style family.

**Format:** The geometric construction rules that define a particular bar code or symbol.

**Four process colours:** The four process colours (cyan, magenta, yellow and black) are also referred to as CMYK. However it is a myth that every image can be duplicated using the "four process colours." Additional 'spot' colours are often required to generate the high resolution images that are most preferred in modern packaging.

**French fold:** Two folds at right angles to each other

**Frozen Edge:** The inability to separate a pressure sensitive label from its liner along one edge. This is generally caused by an absence of silicone on that edge.

**Gang:** The term used to describe a grouping of labels supplied in sheet form

**Gatefold:** - An oversize 'page' where both sides fold into the gutter in overlapping layers. Used, for example, to accommodate maps into books.

**Generic:** Over the counter (OTC) drugs which are no longer protected by a patent.

**Ghosting:** A faint printed image that appears on the substrate around the format where it was not intended.

**Grain:** The direction in which the paper fibres lie.

**Gravure:** A printing process where the image is engraved (electronically or chemically) in the form of cells in the surface of a metal cylinder. Ink is transferred to the substrate by passage between the inked cylinder and an impression cylinder under pressure.

**Greyscale image:** A 'deep' bitmap that records with each dot its grey-scale level. The impression of greyness is a function of the size of the dot; a group of large dots looks dark and a group of small dots looks light.

**GSM:** Grams per square metre. The unit of measurement for paper weight.

**Guard bars:** Auxilliary characters at both ends and centre of EAN/UPC bar codes which provide reference points for scanning and act as start/stop characters.

**Gusset:** The folded inward portion of a flexible bag.

**HDPE:** High density, (0.95-0.965) polyethylene. Has much higher stiffness, higher temperature resistance and much better water vapor barrier properties than LDPE, but it is considerably hazier.

**Heat shrinking:** Application of heat to shrink a band of plastics material around product.

**Heatseal layer:** A heatsealable innermost layer in plastic packaging films and laminates. Can be either adhesive laminated or extrusion coated onto a non-sealable film (or foil).

**Heatseal strength:** Strength of heatseal measured after the seal is cooled, (not to be confused with "hot tack," see next item).

**Heat-sealable film:** Film that may be joined to itself or another substrate through the use of heat and pressure (without the use of adhesives).

**Heat-sealing adhesive:** An adhesive coating previously applied that forms a bond between two surfaces when heat and pressure is applied.

**Heat-sealing:** Joining together by using heat and pressure.

**Helium Neon Laser:** The type of laser most commonly used in bar code scanners.

**Hickey:** Reoccurring unplanned spots that appear in the printed image from dust, lint, dried ink.

**Hot foil tape:** A metallic or pigmented coating on plastic sheets or rolls used in foil stamping and foil embossing.

**Hot foil:** A printing technique using very thin aluminium foil in a variety of metallic colours, such as gold, silver, red and blue. The metallic foil is released from carrier base onto a substrate by the application of heat and pressure from a metal printing plate that bears the image to be hot-foiled.

**Hot stamping:** An image producing method that involves a film carrying a thin leaf of colour which is transferred to a material using heat and pressure. It is commonly used with gold or metallic leaf, but many colours, patterns, and finishes of leaf are available. It is especially popular for labels used in the textile and apparel markets.

**Hot Tack:** Strength of heat seal measured before the seal is cooled, which is very important for high-speed packaging operations.

**HUD:** Hospital Unit Dose packages intended for use by in-patient hospital pharmacies.

**Impact Printing:** A printing method that uses a hammer striking a ribbon to transfer ink onto a material.

**Imprinting:** Technique in which a format is applied to blank or previously printed labels with a secondary printing device such as an imprinter, computer printer, or typewriter.

**Inkjet:** A non-impact printing process in which droplets of ink are projected onto the substrate in a computer-determined pattern.

**Intercharacter gap:** The space between two adjacent bar code characters in a discrete code. An intercharacter gap is normally about one module wide, but is usually held to looser tolerances than the spaces within a character pattern.

**Interleaved 2 of 5:** A one-dimensional, continuous, numeric-only symbology based on 2 of 5 code. Digits are represented in pairs, where the first digit of the pair is encoded in five bars (two of which are wide) and the second digit of the pair is encoded in the adjacent five spaces (two of which are wide). Consequently, an Interleaved 2 of 5 symbol contains an even number of digits (zero-padding may be used for odd-length data). For a given X dimension, Interleaved 2 of 5 can represent numeric data at about twice the density of Code 39.

**Interleaved barcode:** A barcode in which characters are paired together using bars to represent the first character and spaces to represent the second.

**Ivory board:** A smooth high white board used for business cards etc.

**JPEG:** - Joint Photographic Experts Group (also abbreviated jpg). JPEG is a compression technique for colour images and photographs that balances compression against loss of detail in the image. The greater the compression, the more information is lost.

**Key Mark or Trigger:** a printed graphic that indicates to the scanner that the code is in a position to be read; used in some fixed-beam readers.

**Kiss die cut:** To cut the top layer of a pressure sensitive sheet and not the backing.

**Kraft paper:** A tough brown paper used for packing.

**Label:** A label is a piece of paper or other material to be affixed to a container or article, on which is printed a legend, information concerning the product, or addresses. It may also be printed directly on the container.

**Labelling:** Labelling is the information on the immediate or outer packaging.

**Lacquer:** A coating applied to a face material for protection or decoration. Lacquer usually requires ultraviolet curing or drying.

**Ladder code:** A code pattern presented in such orientation that the overall coded area from start to stop is perpendicular to the horizon. The individual bars appear as the rungs of a ladder.

**Laminate:** A material made by joining together complete surfaces of any combination of films, foils and papers.

**Laser scanner:** An optical bar code reading device using a low-energy laser light beam as its source of illumination.

**Laser:** Light Amplification by Stimulated Emission of Radiation. A fine beam of light, sometimes with considerable energy, used in image-setting, colour scanning, copy scanning, plate-making, engraving and cutting and creasing form-making.

**LDPE:** Low density, (0.92-0.934) polyethylene. Used mainly for heatsealability and bulk in packaging.

**Letterpress printing:** A printing process in which ink is applied to a material from the raised portions of printing plates or from foundry type.

**Lidding stock:** Material used to seal a blister pack.

**Lift Tab:** A label edge that is not coated with adhesive and , thereby, allows for easy removal of the label from the release liner. It is frequently used for order picking labels.

**Light pen:** A device that can detect a moving light beam on a CRT display and report its position back to a terminal or computer. This term is sometimes mistakenly used for a hand-held wand scanner, due to the similarity in the physical appearances of the two. (See Wand Scanner.)

**Lithography** - A printing process based on the principle of the natural aversion of water to grease. The photographically prepared printing plate when being made is treated chemically so that the image will accept ink and reject water.

**LLDPE:** Linear low density polyethylene. Tougher than LDPE and has better heatseal strength, but has higher haze.

**Lot Number (LOT):** A number that is assigned to a production batch so that all of a product's components can be traced.

**Lower case:** The small letters in a font of type.

**Machine readable:** Refers to the scanning of bar code symbology by a laser scanner or similar device.

**Manufacturer number:** The digits allocated by an EAN numbering authority to a labeller which, together with the prefix, item reference and check digits, make up the standard article number.

**Matrix code:** A two-dimensional code that represents information both by vertical and horizontal patterns. Examples include Vericode and Data Code. (See two-dimensional Code.)

**MDPE:** Medium density, (0.934-0.95) polyethylene. Has higher stiffness, higher melting point and better water vapour barrier properties.

**Metallic foil:** Printing foils which produce an effect gold, silver, bronze or metallic colours.

**Metallised films:** Flexible films coated with an ultra-thin layer of metal, usually aluminium.

**Metallised paper:** Paper that has a thick deposit of metallised particles that resemble a layer of foil. Metallised paper offers reduced stiffness and better flexibility than metallised film and has an appearance similar to laminated foil papers.

**MET-OPP:** Metallised OPP film. It has all the good properties of OPP film, plus much improved oxygen and water vapour barrier properties, (but not as good as MET-PET).

**MET-PET:** Metallised PET film. It has all the good properties of PET film, plus much improved oxygen and water vapour barrier properties. However, it is not transparent.

**Mil:** 0.001 (one one-thousandth) of an inch, often used in specifying bar code dimensions. One mil is approximately 13.9 points. (See Substitution Error.)

**Misread:** A condition that occurs when the data output of a reader does not agree with the encoded data presented. (See Substitution Error.)

**Module:** The narrowest unit of measure in a bar code. A module may be "black" or "white." Consecutive modules of the same "colour" form bars or spaces that are wider than one unit.

**Monoaxial orientation:** Orientation of plastic films by stretching in one direction, (machine or cross machine direction) only. These films are generally much stronger and stiffer, but have very poor tear strength in the direction of orientation.

**Moving beam barcode reader:** a device that dynamically searches for a bar code pattern by sweeping a moving optical beam through a field of view.

**Mylar™:** Mylar is a registered trademark of the Dupont-Teijin Corporation. Is the industrial brand name for that corporation's polyester (PET) film. Polyester film is a staple of multi-layer packaging for a wide variety of applications.

**Nominal size:** The standard size for a bar code symbol. Most codes can be used over a range of magnifications, commonly from 0.80 to 1.20 nominal.

**Noncontact reader:** A bar code reading device that can detect light reflecting from a scanned bar code without requiring physical contact. Noncontact readers may have an effective scanning range and depth of field of a few inches up to a few feet, depending on the device. (Contrast with Contact Reader.)

**No-read, Non-read, Non-scan:** The absence of data at the scanner output due to no code, defective code, scanner failure, or operator error.

**OCR (Optical Character Recognition):** A special kind of scanner which provides a means of reading printed characters on documents and converting them into digital codes that can be read into a computer as actual text rather than just a picture.

**OCR-A:** An abbreviation commonly applied to the character set contained in ANSI Std. X3.17-1974.

**OCR-B:** An abbreviation commonly applied to the character set contained in ANSI Std. X3.49-1975. Commonly used to improve code readability.

**Offline:** The operation of a device/s that are independent of a large central production line.

**Offset printing:** A lithographic method of printing where the paper does not come into contact with the printing plate. The ink is transferred from the plate to a blanket cylinder and then to the paper.

**Offset/Offsetting:** The partial transference of ink from a freshly printed surface to an adjacent surface -- as that of another sheet of paper.

**One-dimensional code:** A symbology in which all information is represented only by the patterns of elements widths, independent of the perpendicular height of the bars. Examples include UPC, EAN, Codabar Code 39, Interleaved 2 of 5, Code 128, and Code 93.

**One-trip:** Pack or container designed for single use only.

**Onion skin:** A translucent lightweight paper used in air mail stationery.

**Online:** An operation in which peripheral devices are connected directly the main parts of a central production line.

**Opacity:** Hiding power of pigmented (mostly white) plastic films. It is beneficial for packing materials sensitive to light (visible or ultraviolet).

**OPD Original Pack Dispensing:** A pharmaceutical product that is dispensed to the patient in the manufacturer's original package (i.e., not repackaged by a pharmacist or anyone else).

**Open system:** In the context of bar code systems, a system involving bar coded documents or materials that are transferred between companies or organisations. Participation in an open system typically means that the customer is required to utilise bar codes and readers that conform to industry or governmental standards. (Contrast with Closed System.)

**Operating Range:** the sum of the scanner's optical throw and depth of field.

**OPP:** Oriented PP (polypropylene) film. A stiff, high clarity film, but not heatsealable. Usually combined with other films, (such as LDPE) for heatsealability. Can be coated with PVDC (polyvinylidene chloride), or metallised for much improved barrier properties.

**Optical throw:** The distance from the face of the code reader or scanner to the beginning of the depth of field.

**Orientation:** The alignment of bars and spaces to the scanner. Often referred to as vertical (picket-fence) or horizontal (ladder).

**OTC Over the Counter Drugs:** Available without a prescription.

**Over lamination:** The application of a clear film to label material for the purpose of protection or to enhance visual quality.

**Over wrap:** A wrapping enclosing one or more packs.

**Overprinting:** Printing over an area already printed. Often used to print variable information and used to emphasise changes or alterations.

**Package integrity:** Unimpaired physical condition of a final package.

**Packaging material:** Any material used in the fabrication or sealing of a packaging system or primary package.

**Pantone:** (PMS: Pantone Matching System): A registered name for an ink colour matching system.

**Parallel fold:** A method of folding; e.g. two parallel folds will produce a six page sheet.

**Parallel tuck carton:** A carton with both tuck ends attached to the same panel.

**Parity Bar:** Added to a bar code to make the sum of all the bits (Parity Bar, Parity Module) always odd or always even for a fundamental check.

**Partial over wrap:** A wrapping partially enclosing one or more packs.

**PCS (Print Contrast Signal):** A measurement of contrast (brightness difference) between the bars and spaces of a symbol. A minimum PCS value is needed for a symbol to be scanned. PCS values can be calculated and displayed automatically on suitable instruments.

**Peel adhesion:** Peel adhesion is the force required to remove a pressure sensitive label from a standard test surface at a specified angle and speed after the label has been applied according to specified conditions.

**Peel strength:** The measured stress through peeling of a bonded surface resulting in an adhesive failure.

**Permanency:** The measure of an adhesive's ultimate holding power or bonding strength. A bond that makes label removal difficult or impossible without distorting or destroying the face material.

**PET:** Polyester, (Polyethylene Terephthalate). Tough, temperature resistant polymer. Biaxially oriented PET film is used in laminates for packaging, where it provides strength, stiffness and temperature resistance. It is usually combined with other films for heat sealability and improved barrier properties.

**PET-G Shrink Films:** Polyethylene Terephthalate Glycol shrink film. The most expensive shrink film for full body shrink sleeves, but clear, glossy, strong, and most recyclable. The highest shrink percentage available is about 75%, so this film is often required when the container has a narrow waist or neck.

**Picket-fence code:** A bar code or symbol presented in such a manner that its overall length dimensions is parallel to the horizon. The bars are presented in an array that looks like a "picket fence."

**Piggyback:** This type of label consists of a pressure sensitive label on a pressure sensitive liner. This double-ply label is carried on a standard release liner. Once the double-ply is applied to a substrate, the top ply can be removed and applied to yet another substrate. Typically this kind of label is used for response labels in direct mail promotions.

**Pinholing:** The term for very small holes found in aluminium foil which dramatically affects MVTR (moisture vapour transmission rate) and OTR (oxygen transmission rate). Thicker foils have fewer pinholes.

**Pixel (picture element):** The smallest unit that a device can address. A pixel being the smallest spot of print that can be transferred.

**Platen:** The roller or plate which comes into contact with the underside of the substrate and acts as an anvil for 'impact' printing.

**Plow-bottom stand-up pouch:** a stand-up pouch that is made from one piece of film. The front, gusset, and back are continuous, so there is no seal at the gusset. Holds more weight than Doy-style pouches, so are commonly used for products weighing more than one pound.

**PMS number:** The Pantone Matching System is the universally accepted colour definition system. Colours can be blended or individually specified to match a specified Pantone reference colour exactly.

**Point of sale POS:** Signifying data entry systems where actual transactions are recorded by terminals operating on-line with a central computer. These systems frequently employ optical scanning as a means of capturing data.

**Point:** A unit of measure used in printing, most often to specify type size. There are approximately 72 points per inch.

**Polyethylene PE:** Depending on its density, it may be low density (see LDPE). medium density (see MDPE). or high density, (see HDPE).

**Polypropylene PP:** Has much higher melting point, thus better temperature resistance than PE. Two types of PP films are used for packaging: cast, (see CAPP) and oriented (see OPP).

**Pouch:** A rectangular 'bag' with three sides sealed prior to filling and closing.

**Pouches/Sachets:** A flexible material (usually paper, foil, PE, PET or a multi-laminate) used to package various small products.

**Pre-printed symbol:** A symbol that is printed in advance of application, either on a label or on the article to be identified.

**Pressure sensitive label:** A self-adhesive label that is the die cut, usable part of pressure sensitive material that has been converted through roll-fed production equipment. The end product can be produced in rolls, sheets, or fan-folded stacks.

**Primary package:** Sealed or closed packaging system that forms the 'first layer' enclosing the product.

**Primer:** A coating applied to face material, on the side opposite the printing surface, to improve anchorage of the adhesive and to prevent migration of adhesive components into face material.

**Print quality:** The complete analysis of a printed symbol with regard to reflectance properties as well as symbol specifications.

**Print resolution:** The quality of print; the level of detail achieved by a printer. Measured in dpi (dots per inch), typical capabilities are 300 dpi for a thermal transfer printer and 600 dpi for thermal inkjet printer. It is particularly critical in bar code printing.

**Printer font:** High-resolution bitmaps or font outline masters used for the actual laying down of the characters on the substrate, as opposed to display on the screen.

**Process colour:** Colour specified in percentages of cyan, magenta, yellow and black. When superimposed during printing the four colour printing process, their separate plates can recreate millions of different colours.

**Proportional spacing:** (typesetting) A method of spacing whereby each character is spaced to accommodate the varying widths of letters or figures, so increasing readability.

**Push fit closure:** A closure, usually plastic, that is pushed into the neck or opening of a container to form a seal and is held in place by friction.

**PVC shrink films:** Polyvinyl chloride shrink film. Shrink percentages vary from about 40% for extruded PVC shrink tubing to over 60% for seamed material. The most cost-effective shrink film for full-body shrink sleeves.

**PVC:** Polyvinyl chloride. A tough, stiff, very clear film. The oriented version is used mainly for shrink film applications.

**PVDC:** Polyvinylidene chloride. A very good oxygen and water vapour barrier, but not extrudable, therefore it is found primarily as a coating to improve barrier properties of other plastic films, (such as OPP and PET) for packaging. PVDC coated and 'saran' coated are the same.

**Quiet area:** (See Quiet Zone.)

**Quiet zone:** A required clear space, containing no dark marks, that precedes the start character of a symbol and follows the stop character. Sometimes called "clear area."

**Read area:** The scan path or scan area

**Reflectance:** The amount of light returned from an illuminated surface.

**Register marks:** Used in coding and marking to ensure placement of successively printed images and/or successively die cut labels. Also used in colour printing to position the paper correctly, usually crosses or circles.

**Release coat:** The (silicone) coating on a liner that allows pressure sensitive labels to be easily removed or dispensed.

**Release paper:** Easily removed backing paper for self-adhesive labels.

**Relieved area:** An area, outside the product containment zone, that is designated to remain not sealed; this is to facilitate ease of opening.

**Resin ribbons:** The principal component of the binder in the ribbons is resin. With superior heat resistance, abrasion resistance and chemical resistance, materials printed with resin type ribbons can be stored for long periods of time. These ribbons, which are principally used with film labels, are well suited for use with factory automation labels, name plates, and caution labels.

**Resolution:** The number of dots per inch (dpi) in a computer-processed document. The level of detail retained by a printed document increases with higher resolution. ppi (pixels per inch) for an image.

**Reverse out:** To reproduce as a white image out of a solid background.

**Reverse printing:** The vast majority of all consumer is reverse printed. In this case, the outermost layer is printed on the back side and laminated to the rest of the multi-layer structure. While not mandatory in all industries, it is the preferred method for the food industry as it guarantees there will be no ink contact with the food product.

**Reverse tuck in end carton:** Carton where the end tuck flaps are extensions of opposite carton faces.

**Reversed barcode:** Bar code produced by printing space elements in opaque light colour over a dark background. (See Bar and Space.)

**Roll labels:** Pressure sensitive labels that are packaged in continuous roll form.

**Roman:** Type which has vertical stems as distinct from italics or oblique which are set at angles.

**Rotary press:** A web or reel fed printing press which uses a curved printing plate mounted on the plate cylinder.

**Sachet:** A small flexible package made by bonding two layers together on all four sides.

**Sans serif:** A typeface that has no serifs (small strokes at the end of main stroke of the character).

**Scan:** The search for a symbol that is to be optically recognised. A search for marks to be recognised by the recognition unit of the optical scanner.

**Scanability:** The quality of a material that allows for precise printing of bar codes, so as to ensure accurate reading or scanning of the bar code data. Readings (called percent decode ratings) are usually measured as a percentage indicating the number of successful scans out of a total of 300.

**Scanner:** A digitising device using light sensitivity to translate a picture or typed text into a pattern of dots which can be understood and stored by a computer.

**Scanning:** The process of converting a hard copy into digital data ready for editing and design. The quality of the scan is dependent on the quality of the original, the scanning equipment and software as well as the experience of the operator!

**Score:** A crease put on paper to help it fold better.

**Screen font:** Low-resolution (that is, screen resolution) bitmaps of type characters that show the positioning and size of characters on the screen. As opposed to the printer font, which may be high-resolution bitmaps or font outline masters.

**Seal integrity:** Condition of the seal that ensures that it presents a 'barrier' to at least the same extent as the rest of the packaging

**Seal strength:** Mechanical strength of the seal.

**Seal:** Result of joining of packaging layers. NOTE: A seal may be created, e.g., by use of adhesives or thermal fusion.

**Self checking:** A bar code or symbol using a checking algorithm that can be applied to each character to guard against undetected errors. Codes that do not self-check may employ a check digit or other redundancy in addition to the data message.

**Self-adhesive:** An adhesive that bonds by pressure only. Used for pressure-sensitive labels.

**Serif:** A typeface that has "hands and feet" (serifs) on the ends of the strokes and the characters are made up of both thick and thin strokes. Common serif typefaces include Times Roman, Bookman and New Century Schoolbook.

**Shaft encoder:** An electro-mechanical device used to convert the angular position of a shaft or axle to an analog or digital code. Generally used for measuring the speed of an object and converting to linear distance

**Sheet fed:** A machine that feeds/prints by taking up one sheet at a time. This is the system you are most likely to come across.

**Sheeted labels:** Finished labels furnished in cut, singular sheets. This format is most popular for laser printing.

**Shelf life:** The period of time during which a packaged product retains its minimum acceptable quality or safety.

**Show-through:** See opacity.

**Shrink films:** Oriented films that are not heat-set after orientation. These films can shrink back close to their unstretched dimension at temperatures higher than the temperature of their orientation. See PVC Shrink Film, PET-G Shrink Film, and OPS Shrink Film.

**Shrink wrap:** Method of packing products by surrounding them with plastic, then shrinking by heat.

**Shrink-banding:** Heat tightening of a band of plastic material, to collate goods or seal a closure (may alternatively be achieved by moisture loss from a cellulose band).

**Side-gusset bag:** A bag with gussets on both sides, with a fin-seal running from top to bottom and sealed horizontally at the bottom and the top. Commonly used in the coffee industry.

**Skin packaging:** Using vacuum to pull heat-softened plastic film tightly over a product whilst sealing the film to an underlying porous surface.

**Snap-to (guide or rules):** A WYSIWYG program feature for accurately aligning text or graphics. The effect is exercised by various non-printing guidelines such as column guides, margin guides that automatically places the text or graphics in the correct position flush to the column guide when activated by the mouse. The feature is optional and can be turned off.

**Softstrip:** A high-density, two-dimensional data code read with special motorised scanning equipment.

**Solid dose:** Non-liquid dosages such as tablets, capsules, caplets, etc.

**Space:** A light element of a printed bar code symbol usually formed by the un-inked background between bars. (See Bar and Reversed Bar Code.)

**Splice:** A method of joining paper or plastic webs within a pressure sensitive roll to produce an operational continuous web.

**Split face slits:** Slits in the face material of a pressure sensitive product usually for the purpose of facilitating removal.

**Spot colour:** Spot colour is not made using the CMYK process colours - instead the colour is printed using a separately mixed ink - each spot colour needs its own separate printing plate.

**Spot varnish:** Varnish used to highlight a specific part of the printed sheet.

**Spots:** The opposite of "voids", spots are defects consisting of ink or dirt spots within the spaces or quiet areas of a bar code. Depending on size and orientation, scanning across a spot could make a wide space appear to be two narrow spaces separated by a narrow bar.

**Stacked code:** A two-dimensional bar code containing multiple "layers", each of which is constructed as a one-dimensional symbol representing a segment of the message encoded in the entire symbol. Typically the layers provide enough information to allow reconstruction of the entire message, regardless of the order in which the layers are scanned. Stacked codes may be read by modified rastering scanners or by multiple strokes of a hand-held wand. Examples include Code 49 and Code 16K.

**Stamping:** Term for hot foil printing or stamping.

**Start/stop character:** A bar code character included in a symbol to indicate to the scanner the beginning and end of the code.

**Sterile:** Free from viable micro-organisms.

**Stretch wrapping:** A method of wrapping/collating product with an elastic film under tension.

**Strip pack:** A package used to protect solid dose pharmaceutical products, and to provide relatively inexpensive protection for individual dosages.

**Stroke weight:** In a typeface, the amount of contrast between thick and thin strokes. Different typefaces have distinguishing stroke-weight characteristics.

**Substitution error:** A type of error in which characters are replaced by incorrect information. Substitution errors can result from mistakes in encoding, reading, or human operator keyboard entry. For example, mistyping the number "1234" as "1264" because of improper placement of fingers on a keyboard is a substitution error. Most check character schemes provide a degree of detection for substitution errors. In addition, most modern bar code symbologies are designed so that damage to a single character pattern renders it unreadable rather than making it appear to be a different but valid character.

**Surface Print:** The process where by the ink is deposited directly onto the outermost surface of the packaging film or material. The process is most commonly used in short run printing.

**Surlyn®:** A special ionomer copolymer produced by Dupont. It has excellent heatsealability, maximum hot tack and it can be sealed through contaminants, and therefore it is used as a premium heatseal layer for packaging films, especially recommended for high speed packaging machines.

**Symbol length:** The total length of a bar code including the quiet zones preceding the start code and following the stop code.

**Symbol:** A complete, single printed bar code image meant to be scanned as a unit.

**Symbology:** A distinct type of bar code defined by the patterns used to represent data and the rules for constructing complete symbols using those patterns. Examples include UPC, EAN, Codabar, Code 39, Interleaved 2 of 5, Code 128, Code 93, Code 49, Code 16K, and PDF417.

**Tamper-evident closure:** A closure that incorporates a feature that indicates any unauthorised tampering or interference.

**Tamper-resistant label:** A pressure sensitive construction made with a weak face material so that (attempted) removal of the label usually results in its destruction.

**Tear Strength/Tearing Strength:** The force required to tear a label specimen under standardised conditions using an instrument designed to simulate the tearing encountered under general use conditions.

**Tear Tab:** An additional area of face material, next to the release liner of a pressure sensitive label produced in single form to facilitate removal of the release liner.

**Thermal transfer printing:** The system where the heating, by a print head, of an ink layer on a thin film, causes ink to be released and transferred to a substrate.

**Thermoform/fill/seal:** A system where packs are thermoformed from a plastic sheet; then filled and lidded in one continuous operation.

**Thermoforming:** A process where film softened by heat is forced into or over a mould.

**Thermoplastic:** A plastic that softens when heated and re-hardens when cooled.

**Three of Nine:** (See Code 39)

**TIF or TIFF:** Acronym for Tagged Image File Format. A type of bitmap. Pictures can be black-and-white line art, greyscale or colour. This is a widely used format for image/photographic files but is unsuitable for text unless its is created at a very hi-resolution.

**Tolerance:** Minimum/maximum range of measurement.

**Transparent label:** A pressure sensitive label of which the face material, adhesive, and protective coatings transmit light so that objects can be seen through it.

**Transposition errors:** A type of error in which characters are "swapped" within a single data item. For example, mistyping the number "1234" as "2134" is a transposition error. While common in manually keyed data, this type of error virtually never occurs in bar code reading.

**Trap Print:** Another term for Reverse Printing (see Reverse Printing). Trap printing derives its name from the fact that the ink is trapped between the outer layer of material and the substrate.

**Trial size:** Sample of a drug given to the patient by a doctor in a blister, strip pack or small bottle for patient to try medication. Free of charge. Also known as physician sample.

**Turnkey:** A system designed for a specific user and to work as an integrated unit.

**Two of Five:** (See 2 of 5)

**Two-dimensional code:** A symbology that represents information by elements that change both vertically and horizontally. (Contrast with one-dimensional Code.) Multiple scans or a complete camera-like image is used to decode two-dimensional bar codes. Examples include Code 49, Code 16K, PDF417, Vericode, and Data Code. (See also Matrix Code and Stacked Code.)

**Typeface:** The raised surface carrying the image of a type character engraved in metal. Also used to refer to a complete set of characters forming a family in a particular design or style.

**Typeholder:** A metal block, usually brass, in which engraved metal type are locked/slotted into position to make the format to be printed.

**Tyvek®:** A Dupont product. Non-woven spun bonded, polyethylene sheeting with good bacteria penetration resistance; made from very fine, high-density polyethylene fibres. Difficult to tear.

**UCC:** Uniform Code Council, the American organisation that administers the UPC system in North America.

**Unit Dose:** The prescribed amount of each dosage in a package.

**Unit of Use:** The exact amount of a drug's treatment pre-packaged by the manufacturer in standardised amounts.

**UPC:** The Universal Product Code, used in the United States for identifying manufacturer and product for retail sales items: the "grocery store checkout" bar code. UPC is a continuous, numeric-only, fixed format code (with several defined formatting options) and is used almost exclusively for retail packaging. (See also EAN.)

**UPC-A:** one of the two most common UPC formats, in which product type, manufacturer, individual product code, and a check digit are all explicitly represented.

**UPC-E:** one of the two most commonly used UPC formats; used to abbreviate some UPC-A symbols that contain "runs" of consecutive zeros.

**Use by date:** Use by Nov. 2009, means do not use this product after 31st October 2009.

**UV coating:** Liquid laminate bonded and cured with ultraviolet light. Environmentally friendly.

**UV varnishing:** A method of adding a gloss finish to printed surfaces. The advantage of UV varnishing is that it is similar to printing an extra colour and can be applied to selected areas to produce special effects. The UV refers to the Ultra-Violet lamp under which the varnished sheets pass for rapid drying.

**Vacuum packaging:** The withdrawal of air from a pack immediately prior to sealing its closure.

**Validation:** Documented procedure for obtaining, recording and interpreting the results required to establish that a process will consistently yield product complying with predetermined specifications (ref. ISO 11607: 2003(E)).

**Variable-length code:** A symbology that does not specify exactly how many characters may be represented in a single bar code symbol (although upper limits on symbol lengths may be specified.)

**Varnish:** A heat-cured transparent coating of one or more materials applied to a face material for protection and/or decoration.

**Vellum:** The treated skin of a calf used as a writing material. A modern imitation is made out of synthetics, this material is considerably cheaper than animal vellum and can be found in most art and drafting supply stores. Some brand use the term "vellum" merely to suggest quality, when it is actually not vellum.

**Vial:** Glass or plastic container filled with medication.

**Vignette:** Where an image fades-out at the edges. This term usually refers to a single dot pattern that may start at 50% dot and gradually decrease to say 5% in a smooth graduation.

**Voids:** The opposite of "spots", voids are image defects consisting of un-inked areas within the bars of a bar code symbol. Depending on size and orientation, scanning across a void could make a wide bar appear to be two narrow bars separated by a narrow space.

**Wand and Scanner:** A hand-held, pencil-like wand that is "stroked" across a bar code symbol and serves as a contact reader.

**Wax resin ribbons:** The binder used with these ribbons includes both wax (30-70%) and thermoplastic resin. Through the formation of multiple layers in the ink layer, these ribbons provide both the excellent printing transferability of the wax and the superior durability of the resin. In comparison with wax type ribbons, wax resin type ribbons offer superior abrasion resistance. As a result, reliability is improved, and these ribbons are widely used with both paper label and synthetic paper labels. Wax resin ribbons are ideal for such applications such as distribution control labels.

**Wax ribbons:** The binder is about 50-90% wax. The melting characteristics of the wax are used to provide excellent ink transferability, and these ribbons are primarily used for printing on paper labels. However, wax type labels offer poor heat and abrasion resistance, so they are unsuitable for printing images that will be stored for long period of time.

**Web:** A continuous roll of printing paper or film.

**With the grain:** Folding or feeding paper parallel to the grain of the paper.

**WYSIWYG:** What-you-see-is-what-you-get - used to describe systems that preview full pages on the screen with text and graphics. The term can however be a little misleading due to difference in the resolution of the computer screen and that of the page printer.

**X Dimension:** The width of the narrowest bar and narrowest space in a bar code. (See Module.)

**X height:** The height of the lowercase 'x.' Sometimes referred to as 'body height.' More generally, the height of the lowercase letters.

**ZipSeal™ Bag:** A recloseable or resealable pouch produced with a plastic track in which two plastic components interlock to provide a mechanism that allows for recloseability in a flexible package.