



Printing Terminology

Please use this guide as reference for our commonly used printing terminology:

AI: File extension for Adobe Illustrator native files. A vector based document.

Anilox Roll: Cylinder on a Flexo press with microscopic indentations used to wick-up ink from an ink well and then transfer it onto the printing plate surface.

Aqueous: A water-based coating applied in litho printing, to protect the printed surface.

Backing: The supportive material under a printing plate.

Bitmap Image: Pixels (squares of color) arranged in a grid. Comprised series of pixels create images and digital photos. The more pixels, the more colors in a specific area, the better the image quality (or high resolution). The higher the resolution, the bigger the file size.

Bleed: Extending graphic elements (color) beyond the image edge.

Blue Line: A proof used only for layout and trim size.

C1S: Coated One Side paper stock, used on a litho press. C2S, is coated 2 sides.

Caliper: A measurement of thickness. Also refers to the device used to measure thickness of board, paper, plates, etc.

Checking: Broken/ cracked fibers along folded edges exposing the board/ paper through the colored print.

Color Key: A proofing tool showing the exact color used on press. Usually swatches of spot colors.

CMYK: Stand for Cyan, Magenta, Yellow and Black. The four primary printing, colors, combined in process printing, to produce a wide spectrum of color.

Cromalin: Trade name for DuPont color proofs.

Color Separations: The process of preparing artwork, photographs, transparencies, or computer generated art for printing by separating into the four primary printing colors.

Contract Proof: Final art proof representing the finished printed piece; for customer review and authority to recreate the graphics exactly as seen on the proof. Will be used press side during the production run.

Conventional Screens: When printing halftones, the dots are arranged in a linear pattern. Each color separation rotates this linear pattern to avoid printing the dots in the exact same place. Also called FM (frequency modulated) screens.

CREO: A digital, contract proof produced on a printer of the same name. CREO proofs are color accurate (excluding spot colors) and represent trapping.

Cutback: Dots on the print plate are reduced in size to compensate for press dot gain.

Cutting Die: Metal blades embedded into a hard surface used to strike a substrate, leaving either an impression (commonly for folding) or a cut.

Densitometer: A quality control device to measure the density of printing ink.

Die Lines: The CAD file representing the cut and fold lines of the finished product. File from which the cutting die is made.

Direct Digital: Printing on the surface of corrugated sheets using a large format digital printer.

Direct Print: Printing onto the surface of corrugated sheets, using Flexographic print plates.

Direct to Plate: Creating print plates from a digital file. This process replaces the traditional method of imaging film, then exposing the film to plate material.

Dot Gain: The amount an ink halftone dot expands, or spreads out, when applied to paper. This is usually a factor of the printing equipment and the absorbency of the paper. A term used to explain the size difference between dots on the plates and the dots on the printed substrate.

DPI: Dots Per Inch. Measurement of pixels in a digital image.

Duotone: A halftone picture made up of two printed colors.



Durometer: A measurement describing the hardness or softness of an object. Flexo printing plates must be a precise durometer in order to release the proper amount of ink off the plate surface.

EPS: Encapsulated Post Script file format. Our die lines will be distributed as an EPS format.

Epson: A large format, digital printer brand. Epsoms use a piezo ink jet head. This system, with dye based inks, produces a high quality image with excellent color representation. Also refers to the printed proof from this printer.

Flexography: Abbreviated to Flexo: A printing process using flexible, raised relief plates to transfer an image onto a printable surface.

Fill: Refers to the color inside a shape or text. The color of a shape in the Adobe programs.

FPO: Stand for "For Position Only", and refers to a shape or low resolution image holding the place of the final, high quality graphic element.

FTP: File Transer Protocol. A method of transferring digital data via the internet. The FTP site is the internet address where the virtual "folder" is located. A user name and password is often assinged to this virtual folder to restrict access.

FTP Client: A program used to connect to an FTP site and upload or download data to/ from the site.

Gradient: Blending color together in a digital file. May also be referred to as a halftone or vignette.

Hairline: The finest/ thinnest line produced on a printing press.

Halftone: Converting a continuous tone image (like a photograph captured on film) to dots for printing.

Hard Proof: Another name for a contract proof. Not a digital image for proofing, but rather a physical, printed proof.

Hickey: Reoccurring, unplanned spots seen in the printed image from dust, lint, dried ink, etc.

High Res: High resolution; refers to a good image quality. As a standard, photographs should be 300dpi, at full size (in relation to the final print size).

Hybrid Screens: A screen method using both FM and Stochastic dot patterns. Helps hide flaws and prints more vivid, crisp images.

Imposition: In book publishing, the arrangement of pages. In large format printing, a layout proof.

Indicia: Printed postal markings (pre-printed mailing stamp).

ITF: Interleaved Two of Five. A shipping container code. This number contains the UPC, and a pre-assigned warehouse code.

Label: Graphics printed, from a litho press, onto paper, and then glued to corrugated sheets.

Lithography: Abbreviated to litho. A printing process using chemically etched plates to transfer an image onto a printable surface.

Line Art: Artwork without halftone/ screen effects, often basic graphic elements (such as logos, symbols, and text). Also referred to as vector graphics.

Line Screen: The frequency, or fineness, of a halftone or screen. Expressed in lines per inch (lpi). Coarse screens are used where the dot gain is high, fine screens where the highest quality is required. Dependant on the type of printing press and the paper specification. Flexo printing on corrugated are commonly 45, 72, and 85 lpi: Litho could be 100, 120, 133, and 150 lpi.

Loupe: Like a magnifying glass. A printer's tool used to magnify the printed surface.

LPI: Lines Per Inch. Measurment of printed pattern in an image. (see "line Screen")

Match Print: A proofing tool, produced from films, printed on clear acetate and then bound together, representing the final printed image. This method is now obsolete due to digital printing technology.

Mylar: Opaque or transparent material with printed die lines. A tool used to align graphics, die cut and board/ sheet trim.

Mock-Up: A digitally produced, pre-production sample.

Moiré: Occurs when printed screen angles are wrong, creating odd patterns; Unintentional optical illusions.

Overs: Also called over/ under-run. Additional prints produced to ensure the total order quantity is produced, and usable. Industry standard allows for plus or minus 10%, to complete an order.

PDF: Portal Document File. A common file type created by Adobe, for which a free viewer may be downloaded.

Plotter: A type of digital printer (usually large format). The term can referr to the resulting print out.

PMS inks: Pantone Matching System. A color guide developed to identify specific hues and their ink formulation to achieve these hues throughout all printing applications and vendors.



Post Print: Printing after the paper liner has been converted to corrugated board.

Print Card: An 8.5 x 11" print, used for visual representation of the final file.

Print Plate: The material used to transfer an image onto a substrate.

PSD: Adobe Photoshop native file. A good file format for maintaining color, layers, and transparency effects.

Pull Bands: Long strips of plate material transferring ink, one for each color in separation printing, using surface tension to pull the substrate through the press.

Real Time Proof: On-line proofing system which downloads files from a remote print server and renders the image at full resolution, showing the exact print to plate file.

Registration: Alignment. Mostly commonly refers to the alignment of color separated images, transferring from printing plates. Can also refer to print to cut alignment.

Registration Marks: Printed symbols used to check the alignment of process colors. The mark could be any shape, though the most common is a fine line cross hair (or plus symbol) centered within a circle.

RIP: Raster Image Protocol. A hardware, or software, system used to translate files to a printer or image setter.

RSC: Regular slotted container. A typical shipping carton, with similar top and bottom flaps.

Sherpa: A digital, contract proof produced on a printer of the same name. Sherpas represent a true dot pattern, based upon the final printing press.

SBS: Solid Bleached Sulfate. A printable substrate used on a litho press. Measured by "points" (ie: 10pt SBS is .010" thick). More rigid than paper. SBS will be applied directly to open face corrugated board.

Screen: Images converted into dot patterns for process printing.

Spectrophotometer: A tool used to measure color. The readings are measured in LAB values. L=luminosity, A=range of red to green, B=range of green to blue.

Spot Colors: Refers to an ink color, formulated for a specific hue (not a process color, made by combining cyan, magenta, yellow, or black).

Spot Varnish: Varnish covering a specific part of the printed sheet; requires an additional spot varnish plate.

Stochastic: Randomly scattered screen patterns.

Stroke: Refers to an outline around a shape or text. The color of a line in the Adobe Programs.

Substrate: Printable surface material.

Symbology: The technical term for any type of bar code; A computer generated pattern representing a series of numbers and/or letters.

TDR: DuPont brand abbreviation for sheet Cyrel, flexo print plate polymer.

Trapping: Overlapping colors, in process print work, to hide press shift.

Tooling: Term referring to production tools, such as print plates and cutting dies.

Top Sheet: Printed SBS sheets laminated to single face corrugated.

Undercut: Spacing/ distance between the printing cylinder and the ink transfer cylinder on a printing press. Also refers to the plate height/ thickness.

UPC: Universal Product Code. The bar code on a retail product, passing through the point of sale. In Europe, called the EAN (European Article Number).

UV Coating: A high gloss finish on litho print, cured under Ultra Violet lights.

Vector graphics: Points set in a layout, then connected with lines to create shapes, images, text, etc. Vector graphics are easily scaled up or down. When the re-sized, the file size will stay the same, unlike bitmap images.

4/C: Stands for "four color process" printing. combining cyan, magenta, yellow and black in varying tones will recreate a wide range of colors.

80# C1S: 80 pound paper stock, (see C1S)

10PT SBS: SBS .010" thick (see SBS).

