



GLOSSARY OF PRINT TERMS

aqueous coating

a water-based coating applied after printing, either while the paper is still on press (referred to as “in-line”), or after it’s off press. An aqueous coating usually gives a gloss, dull or matte finish, and helps prevent the underlying ink from rubbing off. Unlike a UV coating or a varnish, an aqueous coating will accept ink-jet printing making it a natural choice for jobs that require printing addresses for mass mailing.

bleed

an image or printed color that runs off the trimmed edge of a page.

blind embossing

stamping raised letters or images into paper using pressure and a die, but without using foil or ink to add color to the raised areas.

brightness

the reflectivity of pulp or paper under test conditions using a specifically calibrated measuring instrument. If paper lacks brightness, it will absorb too much light so little will reflect back through the ink.

C1S

paper that is coated on one side of the sheet only.

C2S

paper that is coated on both sides of the sheet.

calendering

the process of compressing a sheet of paper between heavy rollers to smooth the surface of the paper and improve its ability to reproduce images.

caliper

the thickness of a single sheet of paper. Usually expressed as one-thousands of an inch (.0001”) mils or points.

coated paper

paper with an outer layer of coating applied to one or both sides. This coating may be added while the paper is still moving through the papermaking machine at the mill. Coated papers are available in a variety of finishes such as gloss, dull, satin or matte. They tend to have good ink holdout which minimizes dot gain. This helps recreate sharp, bright printed images.

continuous tone

having an unbroken range of intensities, as found in black and white photographs. Continuous tone images have not been screened and contain gradient tones from black to white.



contrast

the degree of difference between light and dark areas in an image. Extreme lights and darks give an image high contrast. An image with a wide tonal range has lower contrast.

debossing

pressing letters or illustrations into a sheet of paper using a metal die to create a depressed image.

deckle edge

the feathery edge on a sheet of paper, created as the paper machine sprays a stream of water or a jet of air across the paper as it is being formed.

densitometer

an instrument used throughout a print run to measure the optical density of ink on paper.

die-cutting

using a formed, metal edged die to precision cut shapes in to a piece of paper.

digital printing

printing by one of a number of plateless imaging systems, with the images generated from digital data. Digital printing systems include inkjet and laser printers as well as high-speed digital presses.

dot gain

the tendency for the dots of halftones and four color images to print larger than they are on the plate.

dpi (dots per inch)

the number of dots that fit horizontally and vertically in to a one-inch measure. Generally, the more dots per inch, the more detail is captured and the sharper the resulting image.

dry trap

a layer of wet ink being applied over a previous layer of dry ink in a separate run through the printing press.

duotone

a two-color halftone of the same image created with two screens, two plates, and two colors.

embossing

pressing a shape in to a sheet of paper using a metal die creating a raised image.

felt side

the top side of the paper, which comes in contact with the dandy roll during the paper making process. The bottom side of the paper, which comes in contact with the wire (forming fabric) of the papermaking machine, is called the wire side. The felt side may appear to be softer while the wire side may have more of a "tooth".

flexography

a direct (not offset) printing method that uses relief plates similar to rubber stamps.



foil stamping

to cover paper with a thin flexible sheet of metal or other material. The foil, which may be clear or opaque, comes in a range of colors and is carried on a plastic sheet spooled like ribbon. Stamping separates the foil from the plastic and makes it adhere to the paper. Foil stamping can be combined with embossing or debossing as an added design element.

form

the assembled pages and images as printed on a single large press sheet before trimming.

four-color process

a method that uses dots of cyan (blue), magenta (red), yellow and black (CMYK) to simulate the variety of colors in a color image.

grain

the direction in which most fibers lie in a sheet of paper. The grain direction is indicated by underscoring the dimension along which the grain lies or by changing the order of the numbers. For example, a 23" x 35" sheet is grain long, a grain short sheet is indicated by 23" x 35" or 35" x 23".

gripper

the leading edge of paper that moves through a printing press or folding machine. When printing, on the gripper edge of the sheet, no printing can take place within the gripper's margin because of the gripper bar (a row of clips holding the sheet of paper as it moves through the press).

halftone

a printed picture that uses dots to simulate the tones between light and dark.

hickey

an irregularity in the ink coverage of a printed page. Hickeys are caused by paper dust which prevents the ink from adhering to the paper surface.

imposition

refers to assembling printed matter in a way that results in the pages appearing in the correct sequence.

ink holdout

resistance to the penetration of ink. Coated papers tend to have greater ink holdout. The ink pigments sit on the surface of the coating and are not absorbed in to the spaces between the paper fibers. This minimizes dot spread and results in a sharp image. Uncoated papers tend to absorb ink in to the sheet.

jog

to shake a stack of papers, either by hand or on a machine, so that the edges are all flush.

laser compatible

paper that performs on a laser printer or copier. Laser compatible paper has good dimensional stability that keeps the paper from curling which can often cause paper jams in printers and copiers.



lines per inch

the number of lines in an inch, as found on the screens that create halftones and four-color process images. The more lines per ink, the more detailed the printed image.

M weight

the weight in pounds of 1000 sheets of paper. On the label of a paper ream, the M weight is often given after the dimensions of the paper. For example, 23"x29" 42M. The capital M, like the Roman numeral M, designates 1000; the 42 indicates that the 1000 sheets weigh 42 lbs.

make-ready

all the activities involved in preparing a printing press for a print run, such as setting the registration, balancing the color, and adjusting the plates and blankets for paper thickness.

metamerism

the tendency of color to change with the light source in which it is viewed.

moire

a pattern created by printing several repetitive designs on top of each other. In four-color process printing, four screens of colored dots print on top of each other. If the angles of the screens of each of the four colors are not properly aligned with each other, an undesirable blurry pattern called "moire" appears in the final image. The term is from the watery or wavy pattern seen in moire silk.

offset

an indirect printing process. Ink is transferred to paper from a blanket that carries an impression from the printing plate rather than directly from the printing plate itself.

The term offset can also refer to the smudges created when ink from one printed sheet transfers to another.

opacity

a measure of how opaque a paper is. The more fibers or fillers the paper has, the more opaque it is and the less it allows "show through" of the printing on the back side.

Pantone Matching System®

the most widely used system for specifying colors. The Pantone Matching System® identifies more than 1000 colors. It provides designers with swatches for specific colors and gives printers the recipes for making those colors.

perfecting

refers to a printing process that simultaneously prints on both sides of the sheet of paper as it passes through the press.

picking

a problem generally resulting from using an ink that is too tacky for the paper it is printed on. The ink actually pulls tiny pieces of the paper off the surface of the sheet.

pixel

the smallest individual component of a digital image, usually a colored dot.



plate

a thin sheet of metal that carries the printing image. The plate surface is treated or configured so that only the printing image is ink receptive.

point

in measurements of the thickness of paper, one point is 1/1000 or .001 inches. In measurements of the size of type, one point is 1/72 inch.

press proof

a test printing of a subject prior to the final production run. Press proofs are generally printed on the paper stock that will be used for the finished product.

rag

paper with at least 25% and as much as 100% cotton fibers.

ream

a package containing 500 sheets of paper.

registration

putting two or more images together so that they are exactly aligned and the resulting image is sharp.

rosette

the formation created by the dots that make up four-color images. The dots, in magenta (red), cyan (blue), yellow, and black, overlap each other in a cluster. Because the dots are not perfectly round, and because they are turned at angles to each other, this cluster resembles the arrangement of petals in a rose.

saddlestitch

folded sheets or signatures of paper are gathered, one inside each other, and then placed over a "saddle" and "stitched" or stapled on the spine with wire.

scoring

pressing a channel in to a sheet of paper to allow it to fold more easily.

self cover

a booklet having a cover made of the same paper as the inside text pages.

sheet-fed press

a press that prints single sheets of paper rather than a continuous roll or web of paper.

sheetwise

type of imposition. refers to printing different pages on the front and back of a large sheet of paper (form). Each large sheet yields one finished piece when cut.

signature

the collated pages of one folded and trimmed form which makes up on section of a bound book.



stochastic

rather than producing regularly spaced dots of lined screens, stochastic screening generates randomly placed dots. Because the generation of dots is frequency modulated, the technique is also called FM screening.

tack

stickiness. Tack is a critical property of the ink used in lithography. Because the ink sits on a flat surface, it needs internal cohesion; in other words, it needs to stick to itself so that it doesn't run all over the plate.

tensile strength

a measure of how likely a paper is to break when pulled at opposite ends, in opposite directions.

thermography

a printing technique that uses a plastic powder which is applied to the paper during printing. The powder fuses to the wet ink but not the unprinted areas and then the sheet passes through a heater. The powder melts/ink swells resulting in raised images.

trapping

the very slight overlapping of adjacent colors.

UV coating

a very slick glossy coating applied to the printed paper surface and dried on press with ultraviolet (UV) light.

varnish

a coating printed on top of a printed sheet to protect it, add a finish, and/or add a tint of color.

watermark

a mark in fine papers, imparted during manufacturing, that identifies a paper. It does not leave an impression in the paper but instead, leaves behind a translucent mark.

web

a roll of paper.

wire side

the bottom side of the paper that comes in contact with the wire of the paper machine during the papermaking process. The top side of the paper is referred to as the felt side.

work and tumble

also referred to as work and flop. Type of imposition. refers to printing the same pages on the front and back of a large sheet of paper (form). Each large sheet yields two or more finished pieces when cut. After the first pass through the press, the sheet is tumbled/flopped or turned from top to bottom and then the back is printed.

work and turn

type of imposition. Refers to printing the same pages on the front and back of a large sheet of paper (form). Each large sheet yields two or more finished pieces when cut. After the first pass through the press, the sheet is turned from side to side and then the back is printed.







