

## A

### Abrasion Resistance

The resistance to scratching of a surface of paper by other paper surfaces or other materials.

### Absorbency

The ability of a material to take up moisture.

### AC

#### Author's Correction

### Accordion Fold

A type of paper folding in which each fold runs in the opposite direction to the previous fold creating a pleated or accordion affect.

### Acetate

A transparent or translucent plastic sheet material of a variety of colors, used as a basis for artwork and overlays.

### Achromatic

The non-colors... black, white and gray.

### Actinic Rays

Light exposure that affects chemical changes in paper.

### Aerate

This refers to a manual process whereby an air stream is blown onto paper sheets to create a riffling effect that separates the sheets as they are fed to the printing press.

### Album Paper

A wood pulp paper with an antique finish used for pages of photo albums.

### Amberlith

Red-orange acetate used for masking mechanicals when photographing for plates. The amberlith area appears black to the camera, and prints clear on the resulting film.

### American Paper Institute

An organization that correlates all paper related information.

### Angle Bar

In "web-fed" printing (printing on rolls of paper as opposed to single sheets), an angle bar is a metal bar that is used to turn paper between two components of the press.

### Antiquarian

A handmade paper (53 x 31 inches), largest known handmade paper.

### Antique Finish

A paper surface with a natural rough finish.

Art Paper

A paper evenly coated with a fine clay compound, which creates a hard smooth surface on one or both sides.

Azure

The light blue color used in the nomenclature of "laid" and "wove" papers.

## B

Back Lining

The fixing of a material, either paper or cloth, to the back of a book before it is bound. Reference case binding.

Backbone

That portion of the binding, which connects the front of the book with the back of the book; also called "back".

Bank Paper

A thin uncoated stock used for making carbon copies.

Baryta Paper

A coated stock (barium sulfate compound) used for text impressions on typesetting machines.

Bas Relief

A three dimensional impression in which the image stands just slightly out from the flat background. References, blind emboss.

Basic Size

Parent sheet size of a grade of paper. 25 x 38 for book papers; 20 x 26 for cover papers; 22 1/2 x 28 1/2 or 22 1/2 x 35 for bristols; 25 1/2 x 30 1/2 for index.

Basis Weight

Weight (in pounds) of a ream of paper (500 sheets) in the basic size for that grade.

Bible Paper

A thin but strong paper (opaque), used for Bibles and books.

Binding

Various methods of securing folded sections together and or fastening them to a cover, to form single copies of a book.

Black Photo Paper

A black paper used to protect photosensitive materials.

Blind Emboss

A design or bas relief impression that is made without using inks or metal foils.

#### Blistering

Although seemingly dry, paper does contain approximately 5% moisture. In cases where there is excessive moisture, and the paper is passed through a high heat-drying chamber, the moisture within the paper actually boils and causes a bubble or blistering effect.

#### Bolts

The edges of folded sheets of paper, which are trimmed off in the final stages of production.

#### Bond Paper

A grade of writing or printing paper generally manufactured for letterheads, or forms. Basic size is 17 x 22.

#### Book Paper

Generic term for coated and uncoated papers. Basic size is 25 x 38.

#### Box Cover Paper

A lightweight paper used expressly for covering paper boxes.

#### Box Enamel Paper

A glossy coated paper used to cover paper boxes.

#### Box Liners

A coated paper used on the inside of boxes, which are used for food.

#### Bristol Board

A board paper of various thickness; having a smooth finish and used for printing and drawing.

#### Broad Fold

A term given to the fold whereby paper is folded with the short side running with the grain.

#### Brocade

A heavily embossed paper.

#### Brochure

A pamphlet that is bound in booklet form.

#### Buckram

A coarse sized cloth used in the bookbinding process.

#### Bulk

A term given to paper to describe its thickness relative to its weight.

#### Bulk

A term used to define the number of pages per inch of a book relative to its given basis weight.

### Burnishing

Creating a polished finish on paper by rubbing with stone or hand smoothing a surface.

### Burst Binding

A binding technique that entails nicking the back fold in short lengths during the folding process, which allows glue to reach each individual leaf and create a strong bond.

## C

### Calendar Rolls

A series of metal rolls at the end of a paper machine; when the paper is passed between these rolls it increases its smoothness and glossy surface.

### Caliper

The measurement of thickness of paper expressed in thousandths of an inch or mils.

### Cameo

A dull coated paper, which is particularly useful in reproducing halftones and engravings.

### Card Stock

A heavyweight paper also known as Cover. Used as covers of catalogs, brochures, books or business cards.

### Cartridge

A rough finished paper used for wrapping.

### Case

The stiff covers of a hardbound book.

### Case Binding

Books bound using hard board (case) covers.

### Casein

A milk byproduct used as an adhesive in making coated papers.

### Cast Coated

A paper that is coated and then pressure dried using a polished roller that imparts enamel like hard gloss finish.

### Chain Lines

Lines that appear on laid paper as a result of the wires of the papermaking machine.

### Chalking

A term used to describe the quality of print on paper where the absorption of the paper is so great that it breaks up the ink image creating loose pigment dust.

#### Clay-Coated Boxboard

A strong, easily folded boxboard with clay coating used for making folding boxes.

#### Coated Stock

Any paper that has a mineral coating applied after the paper is made, giving the paper a smoother finish.

#### Cockle

A paper surface created by air drying, giving the paper a wavy look.

#### Collate

To gather sheets or signatures together in correct order.

#### Color Bars

This term refers to a color test strip, which is printed on the waste portion of a press sheet. It is a standardized (GATF-Graphic Arts Technical Foundation) process which allows a pressman to determine the quality of the printed material relative to ink density, registration, and dot gain. It also includes the Star Target, which is a similar system designed to detect inking problems.

#### Cover

A term describing a general type of papers used for the covers of books, pamphlets etc.

#### Cracking

Delamination.

#### Curl

Not lying flat and tending to form into cylindrical or wavy shapes. A term to describe the differences of either side of a sheet relative to coatings, absorbency etc.; the concave side is the curl side.

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## D

#### Dandy Roll

During the paper making process while the paper is still 90% water, it passes over a wire mesh cylinder (dandy roll), which imparts surface textures on the paper such as wove or laid. This is also the stage where the watermark is put onto the paper.

#### Deckle Edge

The rough or feathered edge of paper when left untrimmed.

#### Demy

A term that describes a standard sized printing paper measuring 17.5 x 22.5 in.

### Die Cutting

A method of using sharp steel ruled stamps or rollers to cut various shapes i.e. labels, boxes, image shapes, either post press or in line. The process of cutting paper in a shape or design by the use of a wooden die or block in which are positioned steel rules in the shape of the desired pattern.

### Die Stamping

An intaglio process for printing from images engraved into copper or steel plates.

### Dimensional stability

The qualities of paper to stabilize its original size when undergoing pressure or exposed to moisture.

### Diploma

A fine paper made specifically for the printing of diplomas, certificates and documents.

### Dog Ear

Occurs when you fold into a fold (such as a letter fold). At the side of one of the creases you get an indentation. It may look like a small inverted triangle.

### Dot

The smallest individual element of a halftone.

### Dot Gain

Darkening of halftone image due to ink absorption in paper causing halftone dots to enlarge. Terms to describe the occurrence whereby dots are printing larger than they should.

### Dots Per Inch

(DPI) A reference for the resolution of a printed or screened image. Higher numbers mean higher resolution or more dots composing an image.

### DP

"Dual Purpose" for use in printing and copying.

### Draw-down

A method used by ink makers to determine the color, quality and tone of ink. It entails the drawing of a spatula over a drop of ink, spreading it flat over the paper.

### Drill

The actual drilling of holes into paper for ring or comb binding.

### Dull Finish

Any matte finished paper.

### Dummy

A term used to describe the preliminary assemblage of copy and art elements to be reproduced in the desired finished product; also called a comp.

### Dummy Model

Resembling finished piece in every respect except that the pages and cover are blank, used by the designer as a final check on the appearance and +feel+ of the book as a guide for the size and position of elements on the jacket.

### Duplex Paper

Paper which has a different color or finish on each side.

### Dutch

Any deckle edged paper, originally produced in the Netherlands. Reference, deckle edge

## E

### Eggshell Finish

The finish of paper surface that resembles an eggshell achieved by omitting the calendar process. Reference, calendar rolls.

### Embossed

A method of paper finishing whereby a pattern is pressed into the paper when it is dry.

### Embossing

To raise in relief a design or letters already printed on card stock or heavy paper by an uninked block or die. In rubber and plastic plate making the process is usually done by heat.

### Enamel

A term that describes a glossy coating on paper.

### Endsheet

Attaching the final sheet of a signature of a book to the binding.

### English Finish

A grade of uncoated book paper with a smooth uniform surface.

## F

### F&G

A term in the binding process referring to folding and gathering.

### Fan Fold

Paper folding that emulates an accordion or fan, the folds being alternating and parallel.

### Felt

A cloth conveyor belt that receives papers from the Fourdrinier wire and delivers it to the drier.

### Felt Finish

The smoother side of paper, usually a soft weave pattern used for book papers.

Felt Side

It is the top side of the sheet in the paper making process that does not lie on the Fourdrinier wire.

Film Coat

Also called wash coat; any thinly coated paper stock.

Finish

Term describing the characteristics of a paper's surface

Finish (Paper)

Dull - (low gloss) also matte or matte gloss.

Flock Paper

Paper that is patterned by sizing, and then coated with powders of wool or cotton, (flock).

Flush Cover

A bound book or booklet etc. having the cover trimmed to the same size as the text.

Foils

Papers that have a surface resembling metal.

Fourdrinier

A machine with a copper wire screen that receives the pulp slurry in the paper making process which will become the final paper sheet.

Free sheet

Any paper that is free from wood pulp impurities.

Furnish

The slurry mixture of fibers, water, chemicals and pigments, that is delivered to the Fourdrinier machine in the paper making process.

Fuzz

A term for the fibers that project from the paper surface.

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**G**

Gang

Group of frames or impositions in the same printing form of different brochures arranged and positioned to be printed together.

### Ganging

The bundling of two or more different printing projects on the same sheet of paper.

### Grain

Direction of fibers in a sheet of paper governing paper properties such as increased size changes with relative humidity, across the grain, and better folding properties along the grain.

### Grained Paper

A paper embossed to resemble various textures, such as leather, alligator, wood, etc.

### Gripper

A series of metal fingers that hold each sheet of paper as it passes through the various stages of the printing process.

### Gripper Edge

The grippers of the printing press move the paper through the press by holding onto the leading edge of the sheet; this edge is the gripper edge.

### Groundwood

Low cost papers such as newsprint made by the mechanical pulping process as opposed to chemical pulping and refining.

## H

### Halftone Paper

A high finish paper that is ideal for halftone printing.

### Hickies

Imperfections in presswork due to dirt on press, trapping errors, etc.

### High Bulk Paper

Paper stock that is comparatively thick in relation to its basis weight.

### Holdout

Coated paper with low ink absorption has good holdout. The ink sets on the surface of the paper and tends to be sharper.

### Hot melt

An adhesive used in the binding process, which requires heat for application.

### House Sheet

This is a term that refers to a paper that a printer keeps on hand in the plant.

## I

IBC

Inside back cover.

IFC

Inside front cover.

Imposition

Arrangement of pages so that they print correctly on a press sheet, and the pages are in proper order when the sheets are folded.

Index Bristol

A relatively thick paper stock; basis size---25 1/2 x 30 1/2.

Industrial Papers

A term used to denote papers such as janitorial, sanitary or heavy packing papers.

Ink Holdout

A quality of paper to be resistant to ink absorption, allowing the ink to dry on the paper surface.

Inserts

Extra printed pages inserted loosely into printed pieces.

Interleaves

Extra blank pages inserted loosely into book after printing.

Iridescent Paper

A coated stock finished in mother-of-pearl.

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**K**

Kraft

A coarse unbleached paper used for printing and industrial products.

**L**

Laid Finish

A watermark, giving a closely lined look in the finish.

Laser Papers

Papers with special coatings or hard finishes that are optimized for laser printers and copiers.

Lay Edge

Edge of a sheet of paper being fed into a printing press.

Leaf

One of a number of folds (each containing two pages) which comprises a book or manuscript.

Leaf Stamping

A metal die, either (flat, or embossed), created from the image or copy, which is then heated to a specific temperature which allows the transfer of a film of pigmented polyester to the paper.

Ledger Paper

A stiff heavy business paper generally used for keeping records.

Linen

A paper that emulates the look and texture of linen cloth.

Lithocoated Paper

A paper that is coated with a special water-resistant material which is able to withstand the lithographic process.

## M

M weight

The actual weight of 1000 sheets of any given size of paper.

Machine Coated

Paper that has had a coating applied to either one or two of its sides during the papermaking process.

Machine Direction

An alternate term for grain direction.

Machine Finish

A paper finish that results from the interaction of the paper with the Fourdrinier process as opposed to post machine embossing. Reference, Fourdrinier.

Matte Finish

A coated paper finish that goes through minimal calendaring. Reference, calendaring.

Mull

Coarse muslin glue placed on the back of book or pads for strengthening.

Mullen Testing

A specific test of tensile paper strength; an important factor if web presses are used for printing.

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## N

Natural

A term to describe papers that have a color similar to that of wood; also called cream, off-white or ivory.

Newsprint

A light, low cost groundwood paper made especially for newspapers. Reference, groundwood.

Nominal Weight

When the basis weight of paper differs from the actual weight, the term nominal weight is used

## O

OBC

Outside back cover.

Oblong

A term used to describe printed books, catalogs etc., that are bound on their shorter side; also referred to as album bound.

OFC

Outside front cover.

Offset

The most commonly used printing method, whereby the printed material does not receive the ink directly from the printing plate but from an intermediary cylinder called a blanket which receives the ink from the plate and transfers it to the paper.

Offset Paper

A term for uncoated book paper.

Onionskin

A light bond paper used for typing and used with carbon paper because of its thinness.

Opacity

Quality of papers that defines its opaqueness or ability to prevent two-sided printing from showing through.

Opaque

A quality of paper that allows relatively little light to pass through.

## P

Page

One side of a leaf.

Paperboard

Any paper with a thickness (caliper) of 12 points (.3mm) or more.

Papeterie

A high-grade soft paper used for personal stationery because it accepts handwriting well.

Parchment

A hard finished paper that emulates animal skin; used for documents, such as awards, that require writing by hand.

Parent Sheet

A sheet that is larger than the cut stock of the same paper.

Peeling

Delamination.

Perfect

A term used to describe the binding process where the signatures of a book are held together by a flexible adhesive.

Perfect Binding

Binding process where backs of sections are cut off, roughened and glued together, and rung in a cover.

Perfecting

Printing both sides of the paper (or other material) on the same pass through the printing machine.

Perforating

Punching small holes or slits in a sheet of paper or cardboard to facilitate tearing along a desired line.

Picking (1)

When the tack of ink is stronger than the surface strength of the paper, some lifting of the paper surface occurs; this is referred to as picking.

Picking (2)

An occurrence in printing whereby the tack of ink pulls fibers or coating off the paper surface, leaving spots on the printed surface.

Piling

A build up of pigment or paper coatings onto the plate, blankets or rollers.

Plastic Comb

A method of binding books whereby holes are drilled on the side closest the spine, and a plastic

grasping device is inserted to hold the pages together.

Premium

Any paper that is considered better than #1 by its manufacturer.

Printability

The quality of papers to show reproduced printed images.

Process Inks

Printing inks, usually in sets of four colors. The most frequent combination is yellow, magenta, cyan, and black, which are printed, one over another in that order, to obtain a colored print with the desired hues, whites, blacks, and grays.

Process Printing

Printing from two or more half tones to produce intermediate colors and shades.

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**R**

Rag paper

Papers with a complete or partial content of cotton fibers.

Railroad Board

A thick, coated paper used for signs; usually waterproof.

Ream

500 sheets of paper.

Right Angle Fold

A term that denotes folds that are 90 degrees to each other.

Roll To Roll

A web press printing process where the roll of paper is printed and stored on a roll to be shipped.

Runability

A term used to describe how well a paper runs on a printing press.

**S**

Saddle Stitching

Stitching where the wire staples pass through the spine from the outside and are clinched in the center. Only used with folded sections, either single sections or two or more sections inset to form a single section.

#### Safety Paper

A paper that shows sign of erasure so that it cannot be altered or tampered with easily.

#### Satin Finish

A smooth delicately embossed finished paper with sheen.

#### Score

Impressions or cuts in flat material to facilitate bending or tearing.

#### Screen Angles

The placement of halftone screens to avoid unwanted moiré patterns. Frequently used angles are black 45deg, magenta 75deg, yellow 90deg, and cyan 105deg.

#### Self Cover

A cover made out of the same paper stock as the internal sheets.

#### Sheetwise

The printing of two different images on two different sides of a sheet of paper by turning the page over after the first side is printed and using the same gripper and side guides.

#### Show Through

A problem that occurs when the printing on one side of a sheet is seen from the other side.

#### Side Stitching

Stitching where the wire staples pass through the pile of sections or leaves gathered upon each other and are clinched on the underside.

#### Signature (Section)

Printed sheet (or its flat) that consists of a number of pages of a book, placed so that they will fold and bind together as a section of a book. The printed sheet after folding.

#### Smoothness

That quality of paper defined by its levelness, which allows for pressure consistency in printing, assuring uniformity of print.

#### Spine

Back edge of a book.

#### Spiral Bind

A binding whereby a wire or plastic is spiraled through holes punched along the binding side.

#### Stability

The quality of paper to maintain its original size when it undergoes pressure and moisture changes.

#### Stock

A term for unprinted paper or other material to be printed.

#### Sulphate Pulp

Paper pulp from wood chips and pressure-cooked in a solution of caustic soda and sodium sulphide. Also known as Kraft.

#### Sulphite Pulp

Paper pulp made from wood chips and pressure-cooked in a solution of bisulphite of lime.

#### Super Calendaring

A machine procedure that produces a high finished paper surface that is extremely smooth and exceptional for printing.

#### Synthetic Papers

Any petroleum based waterproof papers with a high tensile strength.

## T

#### Tag

A dense, strong paper stock.

#### Tensile Strength

A paper's ability to withstand pressure.

#### Text

A high quality printing paper.

#### Thermography

A printing process whereby slow drying ink is applied to paper and while the ink is still wet, it is lightly dusted with a resinous powder. The paper then passes through a heat chamber where the powder melts and fuses with the ink to produce a raised surface.

#### Tooth

The rough surfaced finish of papers such as vellum or antique.

#### Twin Wire Machine

Fourdrinier papermaking machines with two wires, instead of a wire and felt side. This assures higher quality when two sides are used for printing.

#### Two-sidedness

The difference in feel and appearance of either side of a sheet of paper due to the papermaking process having a felt and wire side.

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## U

### Uncalendared

Papers that are not smoothed by going through the calendaring process.

### Upright

A term given to books bound on the longer dimension.

## V

### Varnish

A clear, shiny ink used to add gloss to printed pieces. The primary component of the ink vehicle. Reference, vehicle.

### Vehicle

A combination of varnish, waxes, dryers etc., that contains the pigment of inks and control the flow, the drying and the adhesion of the pigments to the printed surface.

### Vellum

A finish of paper that is rough, bulky and has a degree of tooth.

### Velour Paper

A term given to papers that are coated with an adhesive and then flock dusted.

## W

### Watermark

A translucent logo that is embossed during the papermaking process while the paper slurry is on the dandy roll. Reference, dandy roll

### Web

The roll of paper that is used in web or rotary printing.

### Web Break

A tear in a web roll during the printing process.

### Web Press

Cylinder printing machine in which the paper is fed from a continuous reel, as opposed to sheet fed.

Web Tension

The term given to the tension or pull exerted by the web press on the web roll.

Wedding Paper

A soft paper that is thick and holds up well under embossing.

Wire Side

That side of the paper which lies on the wire screen side of the papermaking machine.

Wove

A smooth paper made on finely textured wire that gives the paper a gentle patterned finish.

Wrinkles

The unevenly dried surface of printed inks.

Writing Paper

Another name for bond paper.