

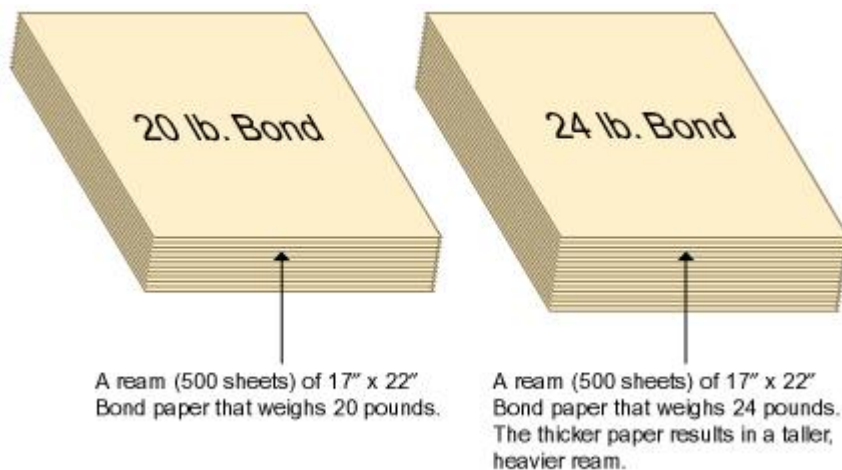
## Glossary of Paper and Printing Terminology

**Abrasiveness** The level wear, resulting from friction, that paper, ink and coatings cause on dies, cutting blades, plates, etc.

**Adhesive, Cold Temperature (Cold Seal)** Adhesive that will create a bond when applied to a cold surface in a cold environment.

**Adhesive, Pressure Sensitive (Peel & Seal)** It is called pressure sensitive because when the adhesive comes in contact with a surface and pressure is applied to the label, the adhesive will allow the facstock to stick.

**Basis Weight** *The weight in pounds per ream (500 sheets) in the basic size for a specific grade of paper.*



**Bleed Through** When printing from one side of the sheet is visible on the other side due to ink problems opposed to show through where the problem results from lack of opacity in the paper.

**Broke** *Machine trim or undesirable paper that is returned to the beaters.*

**Bursting Strength** The amount of uniform pressure required to pull a sheet of paper apart.

**Calendering** *A general term meaning pressing with a roll. The last operation on the drying machine before the paper is wound on reels. Machine calenders are stacks of vertical cast steel rolls that have polished ground surfaces. The paper enters the stack at the top and is compacted and smoothed progressively as it travels down the stack.*

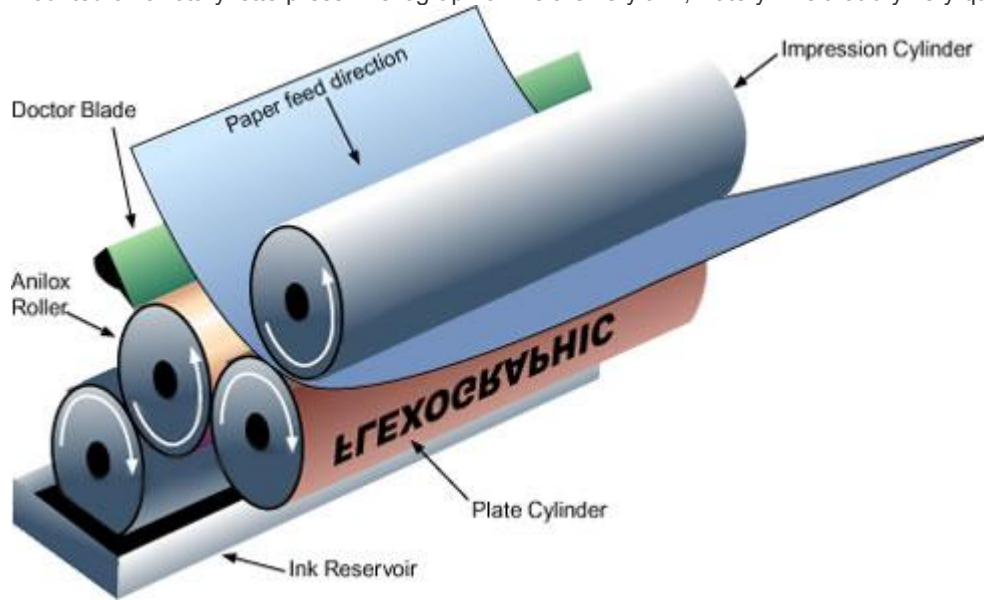
**Close Register** When two colors fit tightly together with little or no trap allowance. This requires precise alignment when printing.

**Die Cutting** The main method or standard means of die cutting involves the use of metal dies to give paper or substrate products specific shapes or designs that cannot be accomplished by a straight cut on a web press or a guillotine cutter.

**Flat Bag** A bag that has no side or bottom gussets.



**Flexography** A printing process using a raised surface on a flexible plate, often made of a rubber-like material, mounted on a rotary letterpress. Flexographic inks are very thin, watery inks that dry very quickly.



**Flooding** Printing an entire sheet with ink or varnish.

**Foil Stamp (Hot Stamp)** A printing process where a heated die is stamped onto a sheet of foil, causing the foil to release from the backer onto the material being printed.

**Font** A complete set of upper and lower case characters, numerals, punctuation marks, and symbols of one specific typeface, size, and style.

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**Full Bleed** Printing that goes to the edge of all four sides of the page.



**Forest Stewardship Council (FSC)** An independent, international, environmentally and socially oriented forest certification organization. It trains, accredits and monitors third-party certifiers around the world and works to establish international forest management standards.

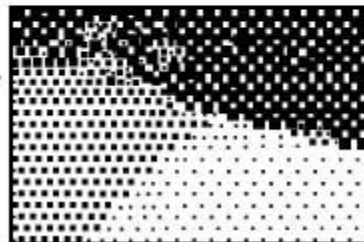
**Glassine** Translucent, smooth, grease-resistant paper made from highly beaten chemical pulps, subsequently supercalendered.

**Halftone Screen** A transparent material consisting of evenly spaced lines that is placed between a photograph and the film to be exposed. The number of lines to the inch controls the coarseness of the final dot formation; the more lines used, the higher the quality. The screen that is used depends on the paper and the type of printing process used. In electronic systems, the screen is simulated by software.

**AM Screen:**  
**Traditional Halftone Screen**



The illustration below shows a close-up view of a portion of the image on the left. The printed dots follow rows and columns, but the dots vary in size.



**Hard Copy** The printed output of an image that is displayed on a monitor. It may be output on paper or film.

**Hickey** A spot on a printed sheet that appears as a small white circle with ink in the center, caused by particles such as dirt, dust, or bits of paper.

**Hot-Melt Adhesive** A solid thermoplastic material that liquefies when heated and then when it cools it resolidifies to form a bond.



**Hot Stamping** A printing process where a heated die is stamped onto a sheet of foil, causing the foil to release from the backer onto the material being printed.

**Ink Holdout** The ability of the paper to keep ink from absorbing into it.

**Knockout** An opening, left in a printed area, in which a figure or photograph may be placed. Reversing type or art out of the background so that when the type or art is printed in that area it will not interfere with the color you are trying to achieve.

**Kraft Paper** A sturdy brown paper with a high-pulp content used for wrapping paper, grocery bags, and some varieties of envelopes.

**Kraft Process** - A chemical pulping process that cooks down the tree to remove lignin, retaining the fibers for paper making.

**Line Art** In traditional graphic arts, line art refers to pictures that use no halftones techniques and no midtones, just black and white. Also called line copy.

**Linerboard** Kraft paperboard, generally unbleached, used to line or face corrugated core board (on both sides) to form shipping boxes and various other containers.

**M** Abbreviation for a quantity of 1000 units.

**Machine Direction** The direction parallel to the forward movement of material through the press.

**Machine Finish (MF)** Finish that is obtained while the paper is on the paper machine. Different finishes are obtained by the number of times the paper is passed through rollers, either dry or wet.

**Machine Glaze (MG)** Known as MG papers, these are paper that appear to have a glazed finish on one side and a rough finish on another. Process occurs on a Yankee dryer when wet paper comes into contact with a steam-heated, smooth roller. Pressure is applied by the roller to the paper.

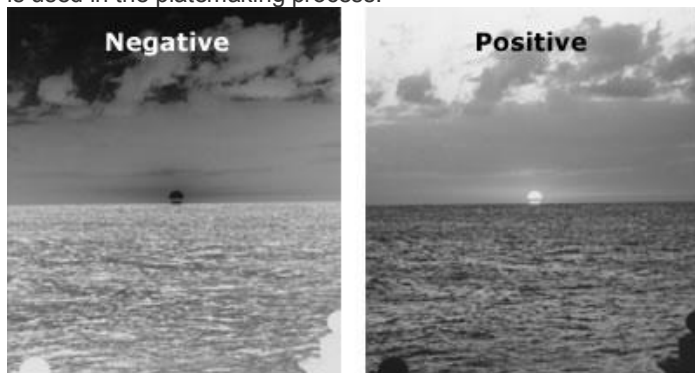
**Misregister** A problem in multiple color printing when the different color images do not line up properly as the successive colors are printed on the page.

**Mixed office waste** Wastepaper generated from offices, such as letters, memos, invoices, etc. which are collected and sorted for paper qualities.

**Moisture Resistance** The ability of a material to resist taking on moisture and breaking down when exposed to it.

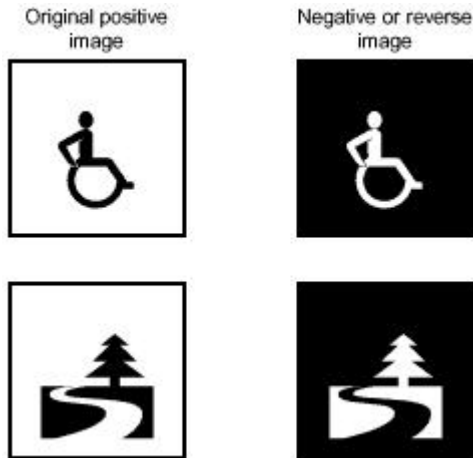
**Mullen Test** A test used to measure the bursting strength of paper. Also referred to as pop test.

**Negative** A photographic image on film which reverses the black and white areas of the original. The black areas on the original are clear on the negative and the white areas of the original are black on the negative. The negative film is used in the platemaking process.





**Negative Image** A reversed image where the image that is usually black on a white background is reversed to be white on a black background.



**Non-Image Area** Any area, on an artboard, negative or plate, that is not to have any printing.

**Opacity** - The amount of "show through" in a sheet from one side to the other. The higher the opacity the less likely that the printing on one side will be visible from the other side.

**Out-of-Register** When an image is not printing in the exact location that it is suppose to. When printing more than one color, if the colors do not line up properly, they are out of register.

**Pantone Matching System (PMS)®** A registered name for an ink color matching system used to compare, match and identify specific colors.



**Paper Grade** The quality of paper as determined by the ingredients of the stock such as wood or cotton fiber and the method of manufacturing. All papers fit into a group or type of paper which is its grade.

**Post-Consumer Waste** Waste paper that has passed through the end-user, such as newspapers, office papers, paper bags and cartons.

**Post-Printed Bags** Any bag that is printed or hot stamped after the bag has been manufactured. Allows for small quantities to be printed with faster lead times.

**Pre-Consumer Waste** Waste paper that has been disposed of during the converting process. This may consist of paper trim, die clippings from die cutting of envelopes and corrugated boxes, or waste off the printing press. This is waste that has not passed through the end user.

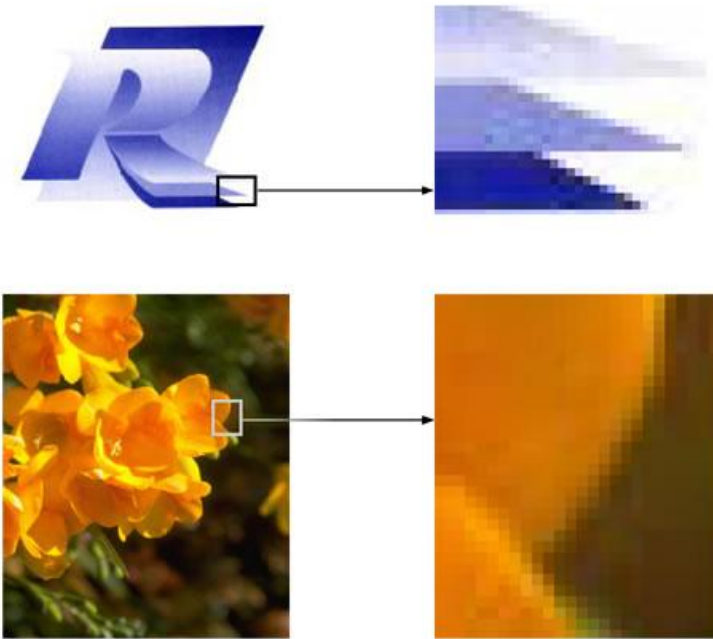
**Preflight** A procedure used to be sure all digital files have been prepared properly before putting them into production. They are checked for correct type fonts, completeness, composition, and compatibility.

**Proof** A copy of the artwork representing the finished product. It is used for review and approval.



**Raster Image** Also called bitmap image, is a reproduced graphic (text or image) which is displayed on a video monitor as pixels or on paper as an array of dots. It is identified in terms of resolution, such as dots per inch or pixels per inch. Raster images are produced by scanners, digital cameras or software editing programs.

Examples of raster or bitmap images are shown below. The close-ups on the right show the pixels that make up the images.



**Raster Image File Format (RIFF)** An expanded version of the TIFF file format used for graphics, which is used by many scanners.

**Register** 1. Aligning the images of each color so that they are printed in the proper location on the paper. 2. Aligning one part of a form with the next so that all parts are aligned. All parts must be in register so that when the form is imprinted or filled out, the impression will transfer to the proper location on each part.

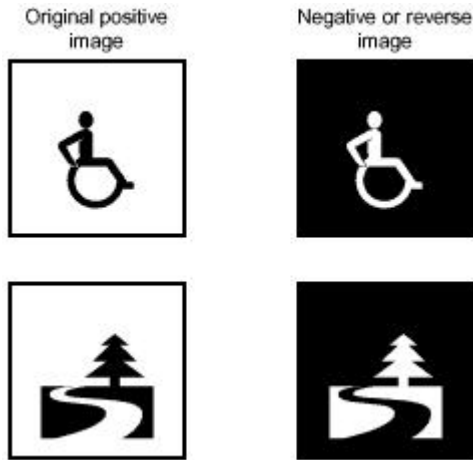
**Release Liner (Peel & Seal)** The backer material or carrier sheet of a pressure sensitive material. It protects the adhesive until time of use. Generally has a release coating applied to allow the adhesive to release easily. Also referred to as the backing or liner.



**Repeat Length** On a web press, it is the circumference of the impression cylinder.

**Resolution** The measurement of output quality expressed in pixels (dots) per inch on a computer monitor or dots per inch on printed media. For example, a monitor displaying a resolution of 800 by 600 refers to a screen capable of displaying 800 pixels in each of 600 lines, which translates into a total of 480,000 pixels displayed on the screen. When referring to printed media, a 300 dpi (dots per inch) printer for example, is capable of outputting 300 dots in a one-inch line, which means that it has the ability of printing 90,000 distinct dots per square inch (300 x 300).

**Reverse** To produce an image that is white on a solid background. When printing, the reverse area will be the color of the stock being printed on.



**Reverse Type** The background is printed instead of the type. The type will be the color of the stock being printed on.

**Reverse Type** →

**HOT & SPICY VACATION SPOTS**  
VISIT MEXICO FOR YOUR NEXT HOLIDAY

**W**hen planning your vacation think about beautiful Mexico and what it has in store for you. The food is excellent, if you like the hot and spicy taste. The weather is usually perfect with bright sunshine filled days that are nice and warm and the evenings are a little cool, just right for a light jacket.

There's plenty to do on your vacation to Cozumel. Here's a listing of some of the activities, places of interest and suggestions to keep you busy. Check the links for further information.

**Beach Access** There are a number of beach bars on the island. Most of the best beaches are south of San Miguel. Try to visit as many as you can! Some beach areas offer jet skis, parasailing, snorkeling, excursions, one area even has animals (monkeys, alligators, etc.). There are also beaches on the east coast of Cozumel. Check 'em out on our beach page.

**Scuba Diving/Snorkeling** Cozumel is famous for its terrific scuba diving and snorkeling. Incredible reefs and abundant fish life make this the Caribbean's top diving area. More on diving.

**Horseshoe riding.** We had a great time when we got horses just across from the Paradise Cafe on Cozumel's east coast and rode to the lighthouse. You can ride along the dirt road or along the beach. This was a fun outing and the horses were quite responsive. The ride is about 2.5 hours total both ways. Playa Sol has horses, too. You can also ride in the jungle, with a guide, at an area near the Posidonio Hotel. And north of town, just before the road ends, there are horses to ride along the beach and inland. Don't expect a huge stable of steeds ... you'll find these are pretty small operations with a few horses, but still a good time!

**Mini Golf** This family fun spot was opened by a young American couple in May 1998. It is inexpensive to play and the course is challenging with traps and lots of water. We would recommend you play in the evening and take advantage of the cool breezes. Located on 19th Avenue and Calle 1 (if you find the water tower, you can't miss the mini golf, it's just across the street from the Diamond Cafe Bakery).

**Go Cartz** South of town near the La Cariba Hotel. We haven't tried these yet.

**Sunday Fiestas in the Plaza** It's a Sunday tradition in Cozumel for locals to gather in the central plaza for live music, food and fun. Locals, dressed in the best, converge on the plaza for an evening of dancing and socializing. Gringos are welcome, too!

**Juan Lafitte Lobster Dinner Cruise** Okay, sometimes we refer to this as the Boca Boca Cruise, but maybe we've got the wrong impression. This is an evening on a pirate's ship with a full lobster dinner, all you can drink, live music, games, prizes, dancing ... the works for around \$50 per person (children 12 and under pay half price). Cruise departs from Puerto de Almirante at 7:35 (that is just south of town). Reservations are necessary, and we recommend that you do so early in your trip or you could be SOL. 2-594-73 is phone number. This is very popular, but we'd love to hear some feedback on the dinner cruise!

Cozumel Sailing offers a sailing adventures. Boats can be rented hourly or daily for your private sailing adventure. Up to six people per boat can experience this Caribbean activity! The shop is located on 10th Avenue, just south of the plaza (it's across the street from Caballito del Caribe dive shop).

Island Museum is a recommended stop

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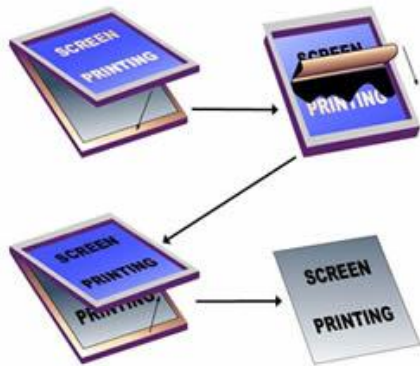
**Rub-Off (1)** - Ink on printed sheets, after sufficient drying, which smears or comes off on the fingers when handled.  
**(2)** Ink that comes off the cover during shipment and transfers to other covers or to the shipping carton or mailer; also called Scuffing.



**Sans Serif Type** A typeface without serifs, the cross strokes on the ends of the letters.

- Helvetica Light
- Helvetica Light Oblique*
- Helvetica Regular
- Helvetica Oblique*
- Helvetica Bold**
- Helvetica Bold Oblique***
- Helvetica Black**
- Helvetica Black Oblique***
- Helvetica Condensed Light
- Helvetica Condensed Light Oblique*
- Helvetica Condensed Medium
- Helvetica Condensed Oblique*
- Helvetica Condensed Bold**
- Helvetica Condensed Bold Oblique***
- Helvetica Condensed Black**
- Helvetica Condensed Black Oblique***
- Helvetica Compressed**
- Helvetica Extra Compressed**
- Helvetica Ultra Compressed**

**Screen Printing** A printing method where a squeegee is used to force ink through a mesh fabric that has a stenciled image area that allows the ink to pass through the mesh to create the image.



**Screen Tint** A screen pattern that consists of dots that are all the same size and create an even tone.





**Serif Type** A typeface that has the cross strokes on the ends of the letters.



**Single Wall Bag** Manufactured from a single layer of paper.

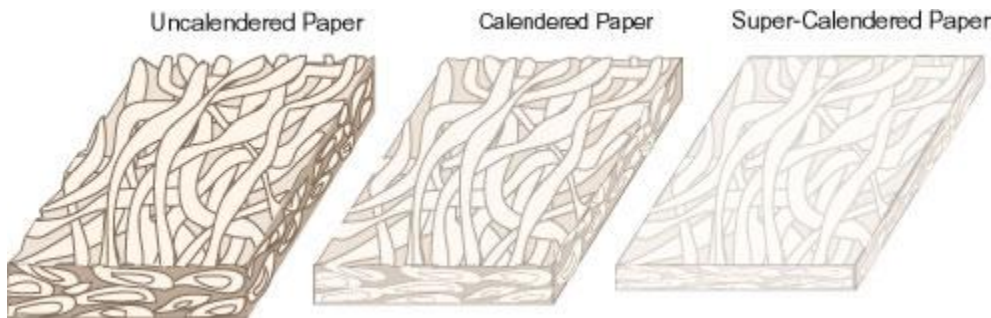
**SOS Bag** Self Opening Style. Four bag sides and the bottom, with no handle, and a serrated-top edge. Generally know for use as lunch bags and grocery style bags in a variety of sizes.

**Soy Based Ink** Inks whose pigment vehicles contain soybean oils instead of petroleum products. Soybean inks are a good alternative to petroleum base inks because of their ease of use and because of their environmental considerations.

- Periodically we are asked if our bags can be printed with soy inks. Soy based inks have a very limited role in flexographic printing. We only print flexographically.
- Offset litho inks are thick and pasty. The materials within which pigments are dispersed are petroleum based compounds. It is these thick, pasty compounds that soy oil is designed to replace in offset litho inks.

**Substrate** The material or stock that serves as the base onto which another material, chemical or solution is applied. Materials such as paper, plastic, film and acetate can all be the base substrate that may have ink, adhesive, photosensitive emulsion or a laminated material applied to one or both sides.

**Supercalendered** An additional papermaking process where the paper runs through a set of alternating steel and fiber covered rollers. Supercalendering produces a very smooth thin sheet.



**Tack** The stickiness of ink required to adhere properly to the type of substrate being printed on. Too much tack can cause the fibers to be pulled off the paper causing picking.

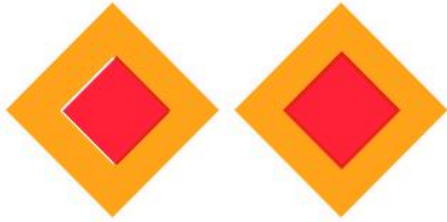
**Tagged Image File Format (TIFF)** A graphics file format developed by Aldus, Adobe, and Apple that is especially suited for representing large bitmaps, such as scanned black and white or color images.

**Tear Strength** Paper's ability to resist tearing while going through various stages of production such as printing, folding, book binding and miscellaneous bindery operations.

**Tensile Strength** The ability of the paper to withstand the stress and strain applied to it before breaking down and pulling apart.

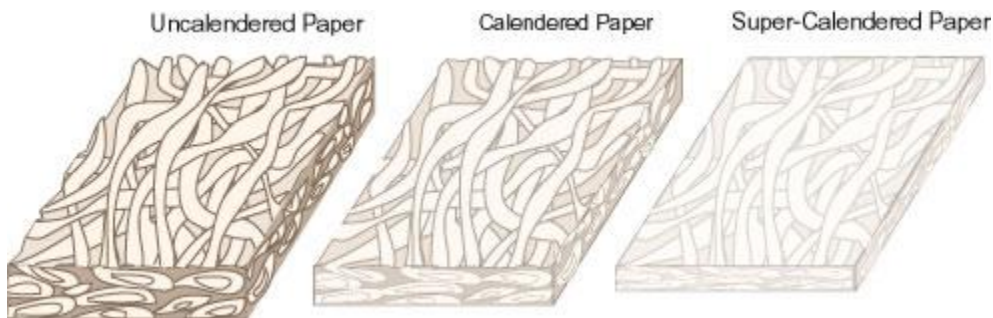
**Tint** 1) The addition of white to a color. 2) Also, when printing a color in any type of screening that causes the ink coverage to be less than 100%.

**Trapping** The overlapping of adjoining colors or ink to help prevent the possibility of a fine white area showing between colors due to misregistration of color negatives or due to normal variations on the press.



**Turn-top Bag (Folded top)** A style of bag construction where the top of the bag is folded to the inside yielding a more finished look than the “saw tooth” style.

**Uncalendered Paper** Paper that has not been sent through the stack of polished steel rollers used in the calendering process which smooths the surface of the paper.



**Vector Graphics** Graphics and pictures represented by lines and curves rather than using dot or pixels as used on bitmapped or raster images. Vector graphics are infinitely scalable without loss of quality.

**Virgin Paper** Paper manufactured from new pulp. Does not contain any recycled material.

**Wet-Strength Papers** Once wet, ordinary papers lose most of their original dry-strength properties. Wet strength papers possess properties that resist disintegration and rupture when saturated with water. Papers are classified wet strength when they retain 15% or more of their dry-tensile strength. Superior quality wet strength papers may retain as much as 50% or more dry strength following immersing in water. Wet strength papers range in weight from tissue to paperboard.