

PRINT BASICS

Paper
Mailing Requirements
Inks & Colors
Electronic Files
Proofs
Press
Bindery & Finishing
and
How to Spec a Print Job to Get an Accurate Quote



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INTRODUCTION TO PAPER

PAPER SELECTION

When planning a printed project, many factors must be considered. Design, copy writing, photography, illustration, and typography are all major parts.

Paper selection must be considered as well. The paper you print on has a major influence on how your images will look - how they will be communicated to your audience.

Coated or Uncoated? Light cover or heavy book weight? #1 sheet or #2 sheet? These are all questions to be asked. Hopefully this article will help you to know when and how to ask the questions and where to look for your answers.

Here are some basic questions to ask yourself before selecting a paper:

QUESTIONS

What is the size of the run?

A small run means paper cost is a much smaller percentage of the total cost, allowing you to upgrade without major financial implications.

What is more important in this project: Image reproduction or reading the copy?

The glossier coated stocks will reproduce your 4-color images better. Uncoated or matte coated stocks will allow your audience to read your piece more easily, particularly if there is a lot of copy.

Will this piece be mailed?

The post office has specific requirements for mailing. Make sure you know them. Gloss stocks will be less vulnerable than dull or matte stocks to the scuffing and scratching that occurs during mail handling. Uncoated stocks are even less vulnerable.

How important is the impression of heft or body in my piece?

Often, thicker and heavier stocks convey an impression of greater worth or importance, and thinner stocks convey a sense of economy.

Will people be writing on this piece?

Uncoated, dull or matte stocks are better choices for pieces that will be written on by ball point pen or pencil.

How will my final selection really feel?

If this is a new project, always request a dummy. Feeling a stock in the swatch book can be very different from feeling the stock made into the 24 page stitched booklet.

RECIPE

Paper is made from a pulp mixture of wood fiber and water. The pulp is a combination of wood fibers - short, thin hard wood fibers to give paper smoothness and consistency; and shorter, wider soft wood fibers to give paper its strength and stability. There are uncoated stocks and coated stocks.

As a stock surface becomes smoother and glossier, its ability to reproduce a crisp dot increases. On less smooth sheets and uncoated sheets, the ink will spread as it absorbs into the stock, giving the dot a slightly fuzzy or softer look. There are times when you may want only the best and most expensive sheet in order to reproduce this very crisp image. But there are times when you may want a softer look to your images. The other factor you need to consider in your choice is price point of the stock. Sacrificing a level of crispness may not be obvious to your audience, and many times it may allow you to bring your project in under budget.

UNCOATED STOCKS

Most printing done on uncoated stocks is one and two color. The variety and practicality of uncoated stocks is tremendous. The textures and colors of uncoated stocks enhance the reproduction of the images printed on it. There are times when one would choose an uncoated stock for reproducing process color. They give a softer, more muted look to the image and the color.

BONDS

Bonds or writing stocks are uncoated sheets used for business communications. Letterhead stocks, envelopes and copy paper are all examples of bond or writing grade stocks. Bonds, while printed on to produce letterhead, are designated for uses other than printing. They must have the following qualities:

Permanence

Durability for handling, folding and loose leaf binding

The ability to be written upon, erased

Must be suitable for laser printing.

Many bonds are watermarked, designating the mill and specific name of the paper. Bonds come in a variety of grades, colors, and textures. Higher grade bonds have 25% or higher levels of cotton fiber. The cotton affects the look, the feel and the durability of the stock. Colors tend to be light or pastels, so that black laser printing or writing can be seen on them.

Textures include smooth, laid, linen, and felt. Papers today have a variety of patterns as well. Speckles, colored fibers and columns are all examples of what you can find in many bonds.

TEXT

Text stocks are made for various purposes. Books, flyers, brochures and invitations are just a few examples. Many bonds have corresponding text weights. The text version of a bond is usually a bit thicker and heavier than the bond. They are not watermarked. This makes them more appropriate for advertising flyers and brochures.

Offset stocks, made for the printing of books, booklets, applications and forms, are similar to untextured bonds, except that they offer a higher degree of opacity, durability and are a bit heavier.

COVER

Cover stocks can be used for business cards, book covers, brochures, and flyers. You can find cover stocks that correspond to almost all the bonds that are commercially available. Many of the cover stocks will be available in darker colors as well, since handwriting or laser printing does not need to be seen on them.

NOTE

Many of the beautiful colored and textured uncoated cover stocks are used so infrequently, that our paper distributors do not carry them on their floors. They are available from the mills, but typically only in larger sheet sizes and quantities. If you see a colored cover stock in a swatch book, do not assume it is readily available. Call me and I can find out availability in a matter of minutes.

WEIGHTS

The designation of weights of stocks is based on the weight of the basic size of that type of stock. Weighing 500 sheets of any grade or type of paper will determine its “basis weight.” The trick is that the basic size of each type of paper is different.

For Bond and Writing grades, 17” x 22” is the basic size. So, 500 sheets of 17” x 22” 24# Bond will weigh 24 pounds.

Basic size of Text stocks is 25” x 38”, and Cover is 20” x 26”. You do not need to remember these sizes. Here is a comparison chart that will make it clear. For instance, 20# bond will correspond in weight to 50# text. 100# text will be the same weight as 55# over stock.

<i>BOND</i>	<i>TEXT / BOOK</i>	<i>COVER</i>
20#	50#	
24	60	
28	70	
	80	
	100	(55)#
	(120)	65
		80
		100
		120

Looking at this chart you will see that 20# bond will be comparable in weight to 50# text or book. And 100# book will be comparable in weight to 55# cover.

To make matters even more complicated, some cover stocks are designated by their thickness, not their weights. For instance, 10 point CIS means a stock that is coated on one side, that measures 10 points thick.

COATED STOCKS

The manufacturing of coated stocks begins with the making of the base sheet. It is important that fibers be uniform in this stage. Coatings are made from clay particles and other additives, fillers, adhesives and pigments; all designed to give you the smoothest, brightest, most opaque sheet to print on for your money. Some coating are applied in the same stage as the base sheet is made; others are applied in a different operation. After the coating is applied to the base sheet, it can be calendared (compressed and smoothed between heavy steel rollers) to achieve smoothness.

PAPER GRADE

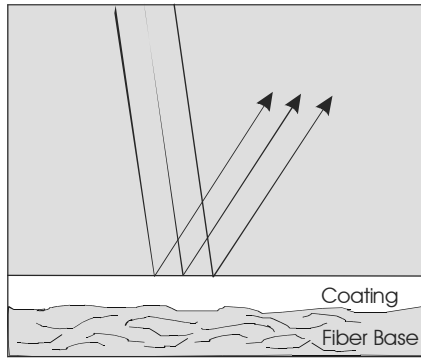
Stocks are graded as Super Premium, Premium, #1, #2 and #3. The main characteristic that determines the grade is the brightness. Brightness is the percentage of light that is reflected from the surface. This helps determine the intensity and faithfulness of the color reproduction. Brightness is measured on a scale created by the paper and pulp industry. To be considered a Premium sheet, for instance, a paper must measure at least 88 brightness. A #1 must range between 85.0 and 87.9.

Most Premium coated sheets are also double or triple coated, and supercalendared to an extremely smooth surface.

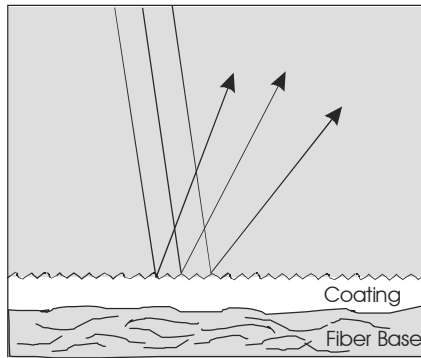
LEVELS OF GLOSS

The level of gloss is determined by the amount of calendaring that is done to the coating on the sheet. The more calendaring, the smoother the surface. This allows the light to reflect off the sheet evenly. There are many levels of gloss on coated sheets, and different paper mills sometimes call them by different names.

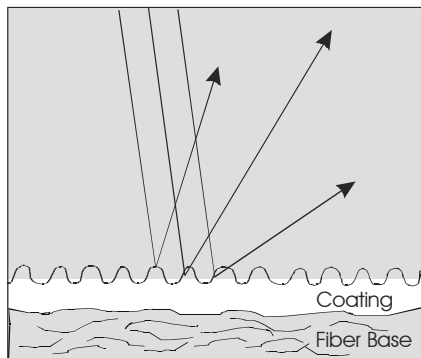
The shiniest surface is called gloss - made shiny by its layers of coating and high degree of calendaring (sending the sheet through a series of heavy steel rollers to compress the surface and make it smoother). Gloss stocks are very reflective, and reflect color evenly from its smooth surface. The surfaces decrease in gloss level incrementally to Silk, Velvet (or Dull), Velour, and finally to Matte. With each step the surface is a bit less smooth, scatters light less evenly, and gives a softer, less shiny look to the image printed on it.



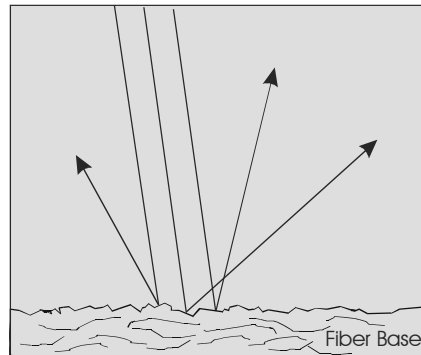
GLOSS COATED



DULL COATED



MATTE COATED



UNCOATED

CAST COATING

Cast Coating is a different method of coating. It is applied with a highly polished heated drum, gives a brilliantly reflective mirrorlike coating, and needs no supercalendaring. It is applied either to one side or both sides of the sheet. It comes only in cover stock, is expensive, and has specific applications.

WHITENESS BRIGHTNESS & COLOR

Brightness and whiteness are often mistakenly interchanged. Whiteness is not a technical term. It refers to the shade or color of a sheet. A blue white or cool sheet will have the optical illusion of being a “whiter” sheet than a more warm, red, or even a balanced white sheet.

OPACITY

The popularity of any given shade or color of white changes with color trends or fads. Several years ago most designers favored blue-white sheets. Today, the balanced white sheets are becoming popular again. A general rule is that skin tones will look more normal on balanced sheets. High tech products with shiny metal effects or photos will look better on blue-white sheets.

Generally the thicker, heavier sheets are more opaque. Thinner, lighter sheets are more transparent. But there are other aspects of the paper recipe that help determine opacity. The type of fibers and fillers in a paper will help determine the opacity as well. As white papers are made brighter, the trade-off is some degree of opacity.

Often the domestic sheets will be more opaque than the offshore sheets, although the other side of this coin is that they also tend to be a bit more expensive.

FORMATION

Certainly, the formation, or the surface of the sheet will be something to think about when choosing a stock. The formation is defined as the structure and degree of uniformity of the paper’s fiber distribution as judged by transmission of light. You can see the indications of poor formation in mottling or marbling of the stock. This characteristic will be most obvious when printing large areas of solid ink on the sheet. It may not matter for some pieces, or you may want to put up with the formation in order to bring your printing in within budget. But it is a factor that you and I will consider when deciding on the appropriate sheet for a job.

NOTE

100# Gloss Book and 100# Matte Book will both weigh the same, but they will be different thicknesses. The 100# Gloss stock will be thinner than the 100# Matte, because it has undergone so much more supercalendaring. For the same reason, more supercalendaring, a Premium stock is usually thinner than a #2 or #3 stock of the same weight.

MAILING REQUIREMENTS

It is critical to keep in mind the U.S. Postal requirements when designing a piece that gets mailed. The goal of the Postal Service is to automate all mail. To that end, they offer significant savings in mailing costs for those pieces which go through the mailing process using their automated equipment. You can mail just about anything you want, but do it the way the Postal Service wants you to, and they will reward you with discounted rates! I will outline general requirements here with the disclaimer that postal regulations do change from time to time, and for a unique piece it is always safest to call your mailing house, or call the Postal Service Mailing Requirements directly. Their phone number is: 858-674-0400.

SIZE: LETTERS AND FLATS

There are two basic categories of mail pieces: Letters and Flats. Letters are anything $6 \frac{1}{8}'' \times 11 \frac{1}{2}''$ or smaller. Flats are anything over that. Postcards are a subcategory of letters, and the reason they exist as a category is that if they are $4 \frac{1}{4}'' \times 6''$ or less, you can mail them first class mail for less than the 34 ¢ that other first class letters cost. In all other sizes, they follow the same rules as other letters.

THICKNESS

If a postcard is between $3 \frac{1}{2}'' \times 5''$ (minimum size for mail) and $4 \frac{1}{4}'' \times 6''$, it must be at least .007'' (7 points) thick. Any postcard over $4 \frac{1}{4}'' \times 6''$ must be .009'' (9 points) thick.

FIRST CLASS

First Class is the way most of us mail letters to our friends and payments for bills because it gets the highest priority and the fastest delivery (with the exception of Priority Mail or Special Delivery). As a matter of fact, anything that is personalized is required to be mailed First Class. The 34¢ buys us not only this high priority, but also the attention by the Postal Service when it is not deliverable. If they find that they cannot deliver this letter, they will send it back to you.

THIRD CLASS OR PRESORTED STANDARD

3rd Class Mail, or Presorted Standard Mail are today's terms for what used to be called Bulk Mail. This is business mail that is discounted - depending on how easy you make it for the Post Office to process it.

Presorted rates are tiered, based on the concentration of pieces per zip codes. In other words, a 10,000 piece international mailing will not have a high concentration of pieces in the same zip codes, and will not get a substantially discounted rate. A 10,000 mailing to Chula Vista, however, will have a very high concentration of pieces in the same zip codes, and will receive a substantially discounted rate.

Mailing is a specialty with its own set of rules. Get your Mail House involved to help you save money! Call me for a referral if you do not already have this resource.

SPOT COLOR In 1963, Lawrence Herbert, founder of Pantone, created a system of identifying, matching and communicating colors. Called the Pantone Matching System, the specific color formulas are known as PMS colors. It has become the universal language for color identification among graphic designers and printers. PMS books are necessary tools of the trade.

Most ink manufacturers formulate inks to PMS guidelines, although there are other ink systems. Toyo inks have become popular over the last 15 years as an alternative, because it offers an even wider variety of colors than Pantone. Toyo colors have not become the standard in this county, although they can be formulated by any of our ink vendors.

NOTE

Pantone has a great website with a great deal of information. It is www.pantone.com ,and well worth a visit.. If you have a few minutes, and want to test your color sense, go to www.colorseminars.com/colorquiz and test your current color knowledge.

When selecting PMS colors, it is always advisable to have a PMS book or specifier from which to choose the color. Your monitor will not show you accurate color. The basic PMS books are **The Pantone Formula Guide Solid Coated** and **The Pantone Formula Guide Solid Uncoated**. Pantone systems recommends replacing your PMS guides every year (every two is probably sufficient) if you use it for critical color matching or selection. The colors do fade a bit over time.

There are specialty inks that can offer you special effects in your printing. Metallic inks are available in several tones of silvers, golds and coppers, as well as colors that have a metallic look. Metallic inks have actual metallic particles in them - ground aluminum or brass. They require special handling in pre-press, press and finishing, so if you are planning to use metallic inks, let me know early in the process so that I can guide you and manage the special handling on our part.

COLOR DESIGNATION When specifying how many colors are used in your piece, the standard method is to show the colors as a ratio. The number of colors to the left of the slash designates the number of colors on the front of your piece, and the number to the right of the slash designates how many colors are on the back of the sheet. For instance, a 1/1 piece is one color on the front, and one color on the back. A 4/1 piece is four color on the front, and one color on the back.

PROCESS COLOR

The goal of four-color process printing is to create the illusion of continuous tone color (e.g. a photograph). When we reproduce a full-color photograph, illustration or graphic element, we must “separate” the image into the four separate halftone images, in each of the basic process colors: cyan, magenta, yellow and black (CMYK). In the past this was done using a camera, now it is done using a digital scanner. If you are creating the image in a graphic program, the software helps to separate the colors when we output film.

It is possible to use process colors to approximate a specific PMS color; Some PMS colors have CMYK equivalents that are very close to the desired color; other PMS colors are virtually impossible to match in process color. If your color needs to be a match (as in some corporate logos), it is always safer to use the PMS color, even if it means printing a 5th color.

There are two PMS books that will be invaluable if you print often in process colors: **The Pantone Process Guide** which shows the CMYK formulas for colors (again, more accurate than you monitor), and

The Pantone Solid to Process Guide, which shows the comparisons of the PMS color to the process equivalent or approximation.

NOTE

Pantone offers a four book set entitled Pantone Survival Kit consisting of the four books I have mentioned. Buying the whole kit will save you money, over buying each one separately.

ELECTRONIC FILES

Electronic publishing, using computers for graphic designing, is relatively new to the printing process. It began in the early 1980's. It wasn't until the mid 1980's, with the popularity of desktop publishing, that standards were developed to ensure compatibility of hardware, software and storage devices. These standards allowed designers to create, save and transport their files from one computer to another. PostScript[®] became to standard language.

VECTOR AND RASTER IMAGES

There are two classes of digital image data created by graphics programs: vector and raster.

Vector files are a collection of geometric shapes - lines, vectors and color information, or fills. Most drawing or illustrating programs create vector files (e.g. Illustrator). The advantages of vector images are: they are easily modified, they use very little computer memory, and the resolution can be determined by the output device. Vector programs do not handle photographic detail very well.

Raster files are used to depict continuous tone (photographic) or blended images (e.g. Photoshop). Images that are scanned and manipulated, are raster images and are created or manipulated in raster programs. Raster images are described pixel by pixel.

A third class of digital data, symbolic, is used by word processing programs, and describes a page of type (e.g. MS Word). These files cannot be described in PostScript[®] language, therefore are problematic in the graphic world. We can deal with word processing information more easily when it is placed into a graphics or page layout program or saved to the PDF format (see below).

FILE FORMAT OPTIONS

Application or Native Files

The majority of files delivered to our electronic prepress department are in application or native files. They are easily edited, but are more easily affected by platform differences, as they move through the process. (We accept application files in all the commonly used graphics programs, but if you have a question, please call!)

The other most common files are: EPS (encapsulated PostScript[®] files). EPS and TIFF files are standard for high resolution printing in an electronic prepress environment.

GIF, JPEG, PICT and WMF are low resolution files meant for the internet or laser printing only, and not designed for the print workflow.

PDF

PDF or Portable Document Format is a variation of PostScript and can incorporate vector and raster elements. It has gained in popularity because it allows users to view a fully formatted document on multiple operating systems without needing to having the original software and fonts. When converted to PDF, the file is smaller, very transportable, although nearly uneditable.

WHAT YOU CAN DO

There are many ways in which you can prepare, proof and transport your files to ensure the manufacturing of high quality, cost effective and timely jobs. In other words, you have a lot of control over meeting your deadline and budget requirements.

- 1) Use only standard graphics programs.
- 2) Use only PostScript fonts; if you must use TrueType, don't mix PostScript and TrueType fonts in the same document.
- 3) Build in all the levels of proofing that are necessary for final sign-off, so that all copy editing and proof reading are complete by the time we get the files.
- 4) Make sure that you add enough time after final sign-off to prepare your files for output.

By far the largest percentage of all problems we find in electronic prepress are due to missing fonts (fonts not included on the disk).

Most of the balance are due to missing support files.

- 5) Create a checklist for all jobs, and make sure each step is taken to complete it.
- 6) Fill out our electronic output form thoroughly and accurately. It is a check list for you to use to make sure you haven't forgotten anything *and* it is communication of important information to us. This communication is among the most important tools we use to ensure quality!

WHAT WE WILL DO

Preflighting is a term borrowed from the checklist process used by pilots before taking off. It is the way we check for potential problems including:

Missing, corrupt or incomplete files

Missing fonts

Wrong page settings

Inadequate bleeds

Incorrect color specifications

Inadequate resolution

We will preflight your job within the first 24 hours of its being received in our shop. We will call you if we see any of these problems, saving you time and money in costly alterations. Many of the issues can be addressed with a phone call, or by uploading additional or corrected files to our FTP site.

PROOFS

Proofing begins as you or the designer begins to create the piece. Proofing is first done on the monitor, but know that color reproduction on the monitor will be quite inaccurate.

Next, the proof may be black and white prints from your laser or ink jet printer, or may be from a color printer. These proofs give you an opportunity to proof read the copy, position the images, and do give a very good general sense of the piece.

When you send your job to us, it will be necessary to include those finally corrected laser or ink jet proofs. It is these that we will compare our work to as we proceed.

Contract proofs, or final proofs can be digital or analog. The purpose of a contract proof is to simulate and predict the appearance of the printed image, and once accepted or approved by you, becomes the guide for our press operators.

PROOFS

Since our system is primarily Computer-to-Plate, our proofs are digital. These proofs made directly from our final digital file, are created before we make plates. Since we bypass the film stage, our proofs (and final products) skip one generation of dot gain. They are cleaner, clearer and sharper.

For a process color job, We produce an Iris Proof. It is a digital proof that is considered a contract color proof because our system is so well calibrated, that it is extremely close to what we can print on press. If you or the nature of the material need a digital dot proof, we will produce a Spectrum Proof, which is identical in dot structure to what you will see on press.

We still produce an imposition or construction proof called a 43-Wide. It has similar function to our old bluelines in that it shows folding, trim, and back-up. But it has the added advantage of being in (low res) color.

DIGITAL PROOFS

One of the real values in producing a digital proof becomes apparent when there are changes or corrections to be made. The changes are made only to ripped computer files, and we eliminate the costly step of having to re-output film.

PRESS

Today you will find three basic types of presses: letter presses, screen presses and offset presses. Letter presses are similar to the old fashioned presses you see in history books. The smaller letter presses are used for short run printing, and the larger ones for die cutting, scoring, foil stamping and embossing.

Screen presses have a flat screen with the image burned on it, and have a mechanism similar to a squeegee pushing the inks or coating through the screen onto the paper. Screen presses are used for short run, particularly large poster type work; also for UV coating.

OFFSET

Offset presses are the type you will find at most printing companies. They are the most common commercial press. An offset press has three cylinders: plate, blanket and impression, as well as ink and dampening systems. As the plate cylinder rotates, the plate comes in contact with the dampening rollers first, then the inking rollers. The dampening rollers wet the plate so that the non-printing areas repel the ink. The inked image then transfers to the rubber blanket, and the paper receives the image as it passes between the blanket and impression cylinders (the image is *offset* onto the paper from the blanket).

SHEETFEED

Sheetfed presses are what you will see most of in printing companies. They are either multi-color or single color. They will have a separate inking, plating and impression unit for each color. They can use a variety of size sheets for printing.

Our sheetfed presses offer a very wide range of capabilities. We have a 2-color, a 6-color, and a smaller 2-color duplicator press. The larger presses is how we produce most of our commercial 1 to 6-color work. Our 6-color press has run speeds to 7,000 impressions per hour, and produces the highest quality images. This press is computer controlled from a separate console. We produce brochures, books, book covers, flyers, and data sheets on it. Our small press is perfect for business cards, letterhead, and envelopes.

WEB

Most of our 1-color books are done on our small web press. Unlike sheetfed presses, the paper is fed from a roll, and moves through the press very fast (up to 15,000 impressions and hour). It prints both sides of sheet in the same pass. It is very unique, and is what helps make SOS the best choice in Southern California for single color books, booklets, and product inserts.

PLANT TOUR

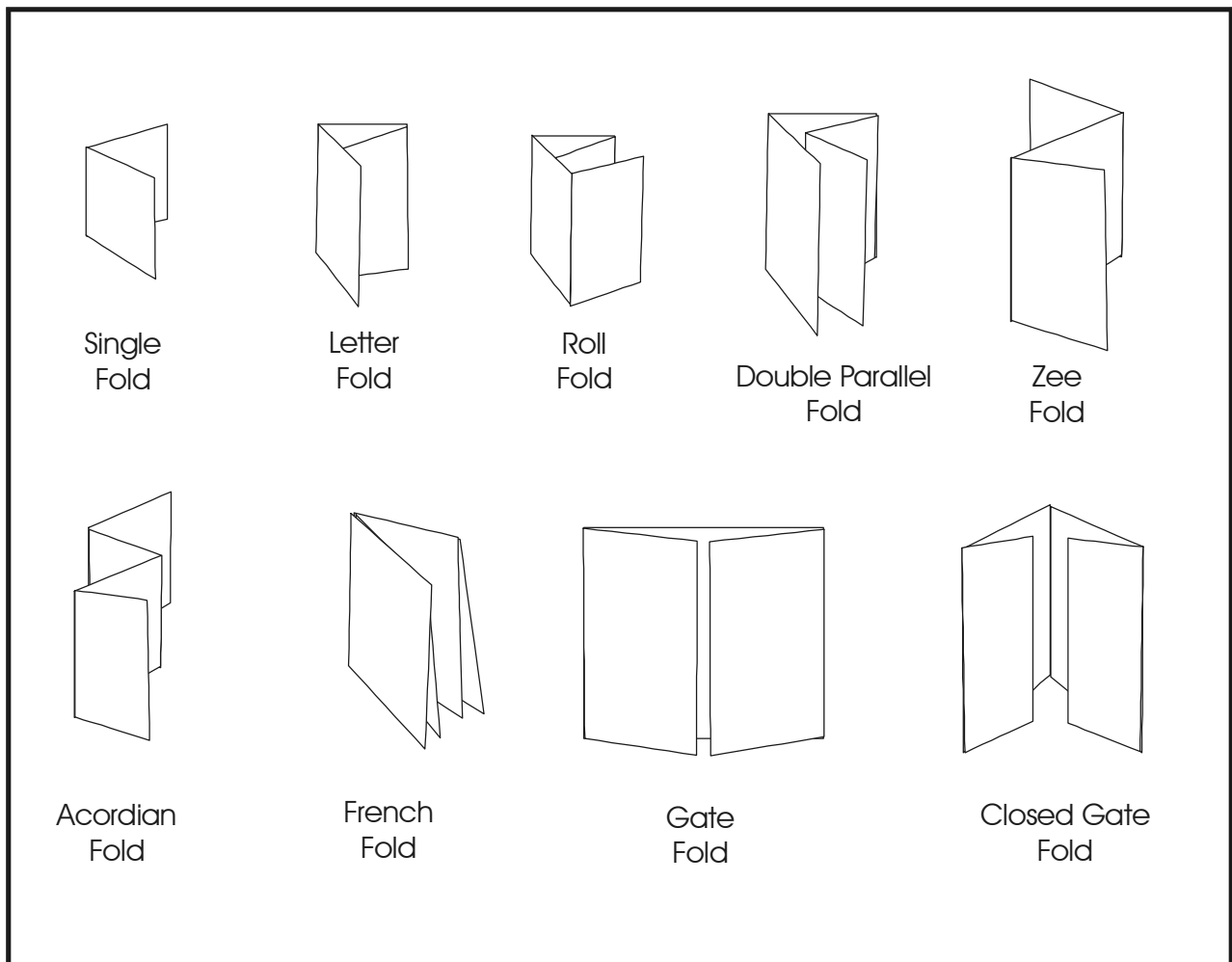
If you are doing a press check and would like to see the presses at work, we always love to take tours through the production area so that you can really see everything we've presented!

BINDERY AND FINISHING

Bindery is everything that we do to your job after it's printed and before we deliver it. Much of this we do in-house, but there are other operations that we choose to rely on specialty vendors for. Basic bindery functions begin with cutting, collating and folding. There are many ways of binding books and booklets: saddle stitching, plastic coiling, wire-o, perfect binding and case binding. Other bindery functions include scoring, perfin, sequential numbering, gluing and die cutting. Decorative finishing techniques include foil stamping and embossing.

FOLDING

The fold that you select will influence the functionality, the look, the price and the turn around of your piece. Here are the most common folds:



Keep this diagram handy and refer to it when asking your salesperson for a quote. It is the best way to describe the folds your piece require.

BOOK AND BOOKLET BINDING

Binding is the final step. There are many options, and like the other parts of the project, all need to be weighed before the project is designed. The design, imposition, printing, folding and trimming all depend on this decision. Here are the most common binding options:

SADDLE STITCH

Saddle stitch: Like many booklets and magazines, the pages of a saddle stitched book are stapled or stitched through the center fold on the spine.

Advantages: very economical, easy to lie flat for reading ease, can be bound either with a self cover (same stock as the insides) or with a stiffer cover.

Disadvantages: Page count must be divisible by four. Limited to page count under 100 pages.

SIDE STITCH

Side Stitch: Useful for materials that are too thick to saddle stitch, this method passes 2 wire stitches or staples from the front page through to the back page about 1/4" from the binding edge.

Advantages: Also very economical, offers single sheet increments, can be used in wide range of page counts.

Disadvantages: Prevents pages from opening flat, can be seen as unpolished or professional.

SPIRAL OR WIRE-O

Spiral and Wire-O: A method whereby pages and cover are held together by either a plastic or metal spiral coil, or small wire rings. This booklet is wire-o bound.

Advantages: Lays and stays flat for reading ease, adaptable to varying page counts, offers single sheet increments, bindings come in a variety of colors and finishes.

Disadvantages: More expensive.

PERFECT BOUND

Perfect Bound: Similar to a paperback book, the pages are collated or gathered together, then attached to a heavier stock cover with a flexible adhesive.

Advantages: Can be very economical, particularly for larger page count books, provides clean and professional look.

Disadvantages: Not easy to lay flat for reading or reference.

CASE BOUND

Case Bound: The conventional method used for most hard bound books, the pages are sewn together then attached to a hard cover.

Advantages: The most durable method, very finished and polished look.

Disadvantages: Not easy to lay flat for reading or reference, most expensive method.

Accurate (and Complete) Job Specs = Accurate Quote

HOW TO SPEC A PRINT JOB TO GET AN ACCURATE QUOTE

There are questions you will need to ask yourself before defining the specs on any printing job. If you don't ask those questions, your salesperson will try to cover all of them, but it is always safer to ask yourself these questions:

What is the size of the run?

What is more important in this project: Image reproduction or reading the copy?

Will this piece be mailed?

How important is the impression of heft or body in my piece?

Will people be writing on this piece?

How will my final selection really feel?

Is this a job that will repeat regularly?

Can I buy more in order to get "economies of scale"?

Can I save money by producing masters or shells to imprint?

Can I run another job at the same time to create a combo run to save money?

Where are my files being created? In-house or contract designer?

Is this a new job or a re-run, and if it is a re-run, where are the electronic files?

What is the realistic schedule on this piece?

When will the file be ready,

When do I need the piece back?

Is there a hard deadline (trade show, meeting, etc.)

Once you ask all the questions of yourself and your department, you will be better prepared to ask the questions of your salesperson.

After a short discussion about the piece, we will fill out your quote request form. We have included a copy of an estimate request form on the next page for your review.

Expect an accurate quote back by fax and phone within 24 hours. If you need your quote faster than 24 hours, please let your salesperson know so that we can try to meet your deadline.



CONTACT _____ EMAIL _____ DATE REQUEST SUBMITTED _____ AM
 CUSTOMER _____ PHONE _____ DATE ESTIMATE WANTED _____ PM
 QUANTITY _____ FAX _____ SALESPERSON _____
 DESCRIPTION _____ NEW EXACT REPEAT REPEAT W/CHANGES
 _____ PICKUPS FROM _____
 _____ SHOWCASE SIMILAR TO _____

	Undersize OK <input type="checkbox"/>	DESCRIPTION Horizontal x Vertical	Basis Wt.	Color	STOCK Name or Grade	Finish	Book or Cover	No Subs
1		PG. COVER OPEN FLAT SIZE X : FINAL SIZE X						<input type="checkbox"/>
2		Pages X : X						<input type="checkbox"/>
3		Sheets X : X						<input type="checkbox"/>
4								<input type="checkbox"/>

		SIDE 1				SIDE 2					
FORM	NO. OF COLORS	% INK COVERAGE	A-BLACK B-PROCESS C-PMS D-METALLIC E-PRE-SYSTEM F-WAX FREE	VARNISH 1-FULL GLOSS 2-FULL DULL 3-SPOT GLOSS 4-SPOT DULL 5-U.V. COAT 6-LAMINATE	BLEEDS TOP BOTTOM LEFT RIGHT ALL	% INK COVERAGE	A-BLACK B-PROCESS C-PMS D-METALLIC E-PRE-SYSTEM F-WAX FREE	VARNISH 1-FULL GLOSS 2-FULL DULL 3-SPOT GLOSS 4-SPOT DULL 5-U.V. COAT 6-LAMINATE	BLEEDS TOP BOTTOM LEFT RIGHT ALL	IF PMS COLOR IS SAME ON BOTH SIDES, INDICATE Y-YES N-NO	PRESS
1-COVER 2-TEXT 3-OTHER			/								
	/										
	/										

PREPRESS	SPECIAL INSTRUCTIONS	BINDERY
SUPPLIED: FILM <input type="checkbox"/> DISK <input type="checkbox"/> CRA <input type="checkbox"/> MATCHPRINT <input type="checkbox"/> COLORKEY <input type="checkbox"/> SAMPLE <input type="checkbox"/> ITEK <input type="checkbox"/> DISK TO PLATE <input type="checkbox"/> RC PAPER <input type="checkbox"/> FILM <input type="checkbox"/> NO TRAPPING <input type="checkbox"/> ADDITIONAL PRODUCTION TIME _____ OTHER: _____ _____ _____ SCANNING REQUIRED QTY FINAL SIZE FLAT/DRUM COLOR B/W _____ _____ _____ _____		FLAT SIZE _____ FINAL _____ FOLD TYPE _____ COLLATE <input type="checkbox"/> INSERT <input type="checkbox"/> _____PIECES CORNER STITCH <input type="checkbox"/> DELIVER FLAT <input type="checkbox"/> SADDLESTITCH <input type="checkbox"/> PERFECT BIND <input type="checkbox"/> WIRE-O <input type="checkbox"/> PLASTIKOIL <input type="checkbox"/> _____"EDGE PERFORATE <input type="checkbox"/> RT ANGLE <input type="checkbox"/> MICRO <input type="checkbox"/> COMBO <input type="checkbox"/> DIE SCORE <input type="checkbox"/> FOLDER/ROLLEM SCORE <input type="checkbox"/> ROUND CNR <input type="checkbox"/> NUMBER <input type="checkbox"/> W/NO <input type="checkbox"/> RED <input type="checkbox"/> BLACK <input type="checkbox"/> BLIND EMBOSS <input type="checkbox"/> SIZE OF EMBOSS _____x_____ FOIL STAMP <input type="checkbox"/> SIZE OF STAMP _____x_____ REGISTERS WITH PRINTING: YES <input type="checkbox"/> NO <input type="checkbox"/> DIE CUT <input type="checkbox"/> KISS CUT <input type="checkbox"/> GLUE <input type="checkbox"/> NEW DIE <input type="checkbox"/> CUST. FURN DIE <input type="checkbox"/> RETOOL DIE <input type="checkbox"/> PAD IN _____'S @ TOP <input type="checkbox"/> BOTTOM <input type="checkbox"/> SIDE <input type="checkbox"/> DRILL _____HOLES STANDARD <input type="checkbox"/> SPECIAL <input type="checkbox"/> PACKAGING WRAP IN _____'S BOX IN _____'S SHRINK _____'S STRING TIE _____'S SKID PACK <input type="checkbox"/> BULK CARTON <input type="checkbox"/> DELIVER TO: _____MULT <input type="checkbox"/> VIA _____STORE @ SOS <input type="checkbox"/>
PROOF: IRIS <input type="checkbox"/> BLUELINE <input type="checkbox"/> FUJI <input type="checkbox"/> LASER <input type="checkbox"/> PRESS CHECK <input type="checkbox"/>		

GLOSSARY

Acid-Free

Paper manufactured in an alkaline environment, preventing deterioration of the paper over time.

Additive Color

Red, green and blue (RGB). When lights of these colors are added together, they produce the perception of white light. Color model used for the computer monitor - not the print workflow.

Aqueous Coating

A water based alternative to varnish for protecting and/or enhancing sheets. May be applied in-line as a gloss, satin or dull finish. Fast drying, allows quicker turnarounds in print and bindery production. More protective than varnish. Used primarily for overall applications.

Analog Proof

Off-press color proof made from separation of film negatives. (e.g. FujiArt or Matchprint)

Basis Size

The standard sizes of the different types of papers used for creating basic weights. They are 17 x 22 for bonds and writing grades, 25 x 38 for book papers, 20 x 26 for cover stocks.

Basis Weight

The weight in pounds of 500 sheets (a ream) of paper cut to a given standard size for that grade (e.g., 500 sheets of 25 x 38" of 50# book paper weighs 50 pounds).

Blanket

The rubber-coated pad covering the intermediate cylinder of a lithographic press. An inked, reversed image is transferred - *offset* - from this blanket cylinder, resulting in a right-reading impression on the sheet.

Bleed

An extra amount of printed image extending beyond the trim edge of the sheet or page.

Blind Embossing

A design or image which is stamped into the sheet without ink or foil, giving a bas-relief effect.

Blueline

A one-color photographic proof for checking design and typographic elements, page position, backup and imposition. Ensures correct folding, trimming, and other bindery functions. See 43-Wide..

Bond

Originally a term applied to cotton content paper used for printing bonds and legal documents. Bonds now are made from either cotton, or chemical wood pulp, or a combination of the two.

Book

General term for light, coated papers suitable for the graphic arts.

Brightness

Refers to the amount of light reflected from the surface of the paper or ink.

Calendering

Passing the web between the nips of steel rolls at the end of a paper machine to impart the desired finish.

Caliper

A measure of paper thickness expressed in thousands of an inch. A micrometer is used to measure thickness.

Cast Coated

High-gloss coated paper manufactured by casting the coated paper against a highly polished, heated steel drum.

Chemical Pulp

Treatment of groundwood chips with chemicals to remove impurities such as resins and gums. The two types are sulfite and sulfate.

Chokes and Spreads

Overlap of printing images to avoid white fringes or borders around image detail. Called trapping in digital imaging systems. Usually done in the printer's prepress department.

Clay

The material most commonly used as filler in coatings for paper.

CMYK / Process Color

Acronym for the four-color process model for printing via four separate plates. The process model allows wide-spectrum reproduction by mixing ink combinations of the three subtractive primaries - cyan, magenta and yellow - plus black for increased tone control. Overprinting these transparent inks creates the illusion of full color.

Coated Paper

Paper that has a layer of coating applied to it, either while the paper moves through the papermaking machine, or when it comes off. Coating improves ink holdout, reducing dot gain, for creating sharper, brighter printed images.

Cold Color

Color with a bluish cast.

Collate

The gathering of sheets or signatures in the desired order.

Cover

Heavyweight coated or uncoated papers with diverse uses including folders, booklet covers, brochures and pamphlets.

Color Balance

The combination of process colors used to reproduce the colors of an original image or object. Process colors are in balance when perceived as true to the original, with no undesirable casts or incorrect hues.

Color Bars

Patches of solid, patterned and tinted inks on the tail edges of press sheets. These quality control devices permit the measurement of variables such as color balance and registration, trapping, print density, dot gain and slur.

Color Proofs

Non-printed reproductions of color art produced by printers to closely approximate final printed color. May be digital or analog.

Comuter-to-Plate (CTP)

Digital system in which the proofs and then plates are made straight from the digital file. It eliminates the need for costly film, therefore is easier to make alterations, and produces higher quality printing. Our system has 3 choices for digital proofs. See Iris, 43-Wide Proofs, and Spectrum Proof.

Continuous Tone

A photographic or graphic element which contains gradient tones.

Contrast

The differences in tonal gradation between an image's highlight and shadow areas - the greater the range, the higher the contrast.

Crop Marks

Vertical and horizontal corner lines indicating the portions of an image to be reproduced.

Crossover

Artwork (image, text or screen tint) that continues across to the facing page of a publication. (see hookup)

Cylinder

Part of a system of large rollers on an offset lithography press. The plate cylinder transfers the image onto the blanket cylinder, which is then *offset* on to a press sheet passing between the blanket and impression cylinders.

Densitometer

A photoelectronic device for measuring the reflection densities of printed ink.

Density

An image's opacity - a measure of which determines the relative thickness of ink on press.

Die Cutting

The process of using sharp steel rules to cut special shapes for labels, folders or packaging, from printed sheets.

Digital Proof

An off-press color proof produced from digital data, usually made before the film is produced.

Dot

The basic, individual element of a halftone.

Dot Gain

Halftone dot growth causing darkening of tones as well as reduced shadow contrast. The dot gain is affected by the amount of ink absorbed into the sheet, the film and the plating process.

Drawdown

A method of proofing inks for special color matches, whereby a thin sample of ink is drawn down upon the surface of a specified stock for evaluation.

Dryback

The decrease in the gloss and change in the color of the ink that occurs during the drying of sheetfed offset inks.

Duotone

The technique of reproducing a black and white photograph or image as tonally enhanced by a second color.

Embossing

Impressing an image in relief to achieve a raised surface.

Felt Finish

A finish applied to paper at the wet press with “felts” having weave patterns.

43-Wide

A digital proof showing back-up, imposition and trim. Used in place of a blueline. . It is produced in low-res color.

Felt and Wire

By contacting the paper machine’s felt blanket rather than the wire during paper making, a sheet’s top (or felt side) results in a smoother printing surface than its opposing wire side.

Fillers

Non fibrous, insoluble mineral materials added to the paper to impart opacity, ink receptivity, whiteness or surface smoothness. Common fillers include clay, calcium carbonate and titanium dioxide.

Gloss

The characteristic of paper that describes its lustrousness or shine.

Gripper Edge

The leading edge of the sheet, held by the metal fingers of the sheetfed offset press is called the gripper.

Gripper Margin

Unprintable blank edge of paper on which the grippers bear. Typically between ½" and 1".

Groundwood Pulp

A mechanically prepared wood pulp used in the manufacture of newsprint and publication papers.

Gutter

The combined inner margins of a publication’s facing pages, or the amount of space between crop marks on a multi-up image.

Halftone

The reproduction of continuous tone images, through a screening process, which converts the image into dots of various sizes with equal spacing between centers.

Hookup

A crossover that crosses a reader spread that is made from 2 different printer spreads.

Imposition

Page arrangement into signature layouts, as defined by factors such as number of pages, press size, sheet size and bindery considerations. Ensures correct sequential assembly when printed and bound. Imposition is usually done by the printer during prepress operation.

Ink Holdout

The extent to which paper retards the inward penetration of freshly printed ink.

Iris Proof

A digital proof showing contract color, made straight from the digital file.

Laid Finish

Applied to the stock during the paper making process that usually has ribs going one direction and columns in the other direction.

Lamination

A plastic film bonded by heat and pressure to a printed sheet for protection or appearance.

Linen Finish

A texture applied to the stock during the paper making process that resembles the finely woven design of linen fabric.

M

Abbreviation for a quantity of 1000 sheets of paper.

Makeready

Procedures required to prepare a press for printing. Includes all adjustments necessary to produce a satisfactory press sheet for the customer. The term also refers to the paper required to complete this initial process.

Match Color

The duplication of a specified color by using either a custom ink formulated to match a specific color, or a standard number from a matching system such as Pantone or Toyo systems.

Matte

A surface having a very low gloss level, reflecting most of the incident light in all directions. Used to describe paper or coatings.

Moiré (pronounced more-ay)

Visual patterns within halftones and screen tints caused by misaligned screens, or conflicting dots of prescreened images.

Mottle

The result of uneven ink absorption on poorly formed paper surfaces. Visible mainly in large areas of solids or tints.

Off-line

Production operations conducted after the printing process rather than during the printing process (in-line). Examples are the applications of special coatings.

Offset Paper

Primarily uncoated paper designed for use in offset printing. Important attributes include high surface strength, lack of curl and absence of foreign material.

Opacity

The degree to which a paper the paper minimizes "show-through" from printing on the other side.

Pagination

The process of performing operations to make pages print in the correct sequence.

PMS

Pantone Matching System

Postconsumer Waste

The amount of recycled material added to paper that has been retrieved from discarded paper waste from homes and offices.

Postscript

A computer description language, used in the print workflow, which allows for the creation of complex images using a series of computer commands.

Process Color

See CMYK

Pulp

Cellulose fibers from wood or other plant material (such as bamboo and other grasses). Softwood pulps are derived from conifers (evergreens). Hardwood fibers are derived from deciduous trees.

Recycled Stock

Stock made with a percentage of discarded wastepaper.

Register

Precise print alignment of the colors on a printed sheet, relative to the edge of the sheets and the graphic elements on the sheet.

Register Marks

Small cross-hair targets on mechanicals, film and sheets, to help ensure accurate register on press.

Scuffing

Undesirable print abrasions caused by wear or handling. Dull and matte coated stocks are most vulnerable to scuffing. May be minimized with the use of special varnishes and other coatings.

Self Cover

A cover of the same stock as the inside pages of a book or booklet.

Shade

The tone or hue of a certain stock. Bluish sheets are termed cool or cold shades. Paper with red or yellow casts are termed warm shades.

Sheetfed

Presses that use paper that has been precut into standard size sheets.

Sheetwise

To print one side of a sheet of paper with one plate (or series of plates), then turning the sheet over to print the other side, using the same gripper.

Signature

The name given to a printed sheet, sometimes containing multiples pages on it, before or after it has been folded.

Spectrun Proof

High resolution, digital dot proof. Proofs that replaces a Match Print in our CTP system.

Subtractive Primary Colors

Cyan, magenta and yellow with the addition of black in printing (see CMYK).

Supercalendering

The process of passing paper through alternating hard steel rolls and soft filled rolls after the paper is made, to smooth the surface of the paper coating and create high gloss.

Text Paper

Fine quality paper available in many colors, finishes and textured surfaces.

Tint

Various screens (strengths) of solid colors.

Trapping

Overprinting screens and colors to eliminate white areas between printed images.

Varnish

A thin protective coating applied over the ink on a printed sheet for protection or appearance. Can be applied in-line, or off-line for a more dramatic effect.

Toyo

Brand of ink that has a tremendous range of spot color choices.

U.V. Coating

A protective coating used for both practical and aesthetic reasons. Applied off-line on a specialty press, it is applied as a liquid, then is cured under UV lights. Can be used in spot or overall application.

Warm Color

Color with a red or yellow cast.

Washup

The process of cleaning the rollers and ink fountain of a printing press.

Watermark

A translucent image or design (usually depicting the name of the paper mill) created during the manufacturing of certain bond and writing papers. Visible when you hold a watermarked paper up to the light.

Web

Presses that feed paper from a roll. Web presses are significantly faster than comparable sheetfed presses.

Work and Tumble

To print one side of a sheet of paper with both the front and back images of the page. Then turn it over, from the gripper to the back, using the opposite side of the sheet for the gripper on the second side, and print the same images on the back of the sheet.

Work and Turn

To print one side of a sheet of paper with both the front and back images of the page. Then turn it over, from left to the right, using the same gripper on the second side, and print the same images on the back of the sheet.

Writing Paper

See bond.