PAPER GUIDE

Paper comes in a variety of grades, colors, textures, weights, and thickness. Considering that paper can contribute up to 40% of the overall print cost, it is imperative to understand papers' various characteristics and optimal uses in the overall project design. This resource will provide a better understanding of: proper paper specifications, how to read a paper swatch book, paper finishes/textures, and how to determine what stock is most appropriate for your planned project.

If you are unsure as to suitable stock for a specific application, Colortech's Project and Production Management team can offer assistance. They will be able to determine if the application is compatible with your paper selection. Colortech will work with you to identify any potential problems and, if necessary, find alternative solutions prior to the start of your project.

Five Steps to Paper Specification

- Provide the basis weight of paper cut to standard size.
- Choose a specific color versus a generalization, i.e., Bright White rather than white; use the name provided by the mill.
- List the complete name brand, i.e., Ivory Wove Recycled Writing.
- Indicate the texture, or finish, as designated by the mill, i.e., laid, linen, embossed, smooth, etc.
- This is sometimes found in the name of the paper as in 'Diamond White Laid Writing.'
  - Identify grade – cover, bond, coated or uncoated book, or text.

Deciphering a Paper Swatch Book

- <u>Basis Weight, Grade, and Size</u>: states available basis weight as defined by grade and is often followed by industry-standard dimensions used to calculate said basis weight. Weight is based on the heaviness of a ream (500 sheets) when cut to the standard size.
- <u>Size and Grain Direction</u>: indicates the size of standard cut sheets; which direction the grain runs; and the M weight, pounds per 1,000 standard cut sheets. Grain direction is denoted by underscoring or using bold type on the corresponding dimension or by an 'L ' or 'S.' If the longest measurement is indicated, it is called 'grain long' and if it is the shortest measurement, it is called 'grain short.' If both dimensions are specified, then either grain direction is available.
- <u>Sheets per Carton</u>: this information is used to accurately determine paper order and estimate cost.
- <u>Weight per Carton</u>: lists the weight of the carton based on the number of standard cut sheets.
- <u>Color</u>: lists what colors are available in any given size.

Weight, Grade, and Size	Sheets per Carton	Weight per Carton	White Ivory	Gray Blue	Red Black
Basis 80 Text (25" x 38") <u>a</u>					
23" x <u>35</u>" (136M) <u>b</u>	1000 <u>c</u>	136 <u>d</u>	X <u>e</u>	X	

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Description of Basic Paper Finishes

Simply put, a finish is characterized by the evenness of a surface. A uniform surface is most desirable unless an intentional pattern is integral to the design.

High Finishes – high degree of smoothness and light reflectivity
- Coated – provide photographic quality: listed in increasing smoothness
- Pigmented
- Publication Matte
- Matte
- Dull
- High Finish Calendared
- High Finish Cast Coated
- English: smooth, uncoated

Low Finishes – low light reflectivity
- Text: soft, toothy
- Antique: tooth and bulk
- Vellum: smooth, dull
- Machine Finish: lightly calendared book grades
- Cockle: semi-puckered
- Wove: smoother than antique or vellum

Textured Finishes – distinct patterns purposefully forced on paper surface
- Embossed: pattern impressed off the paper machine
- Felt: pattern woven directly into drying felt
- Laid: pattern created with a laid dandy roll
- Linen: produced on dry paper using an embossing machine and made to look and feel like linen cloth

Definitions of Guideline Terms

- Grade: Basic categorization of paper based on common use.
- Recognized Names: Similar types of paper can be called by different names. This provides frequently interchanged names.
- Traits: Characteristics that distinguish one grade from another and determine most suitable functions.
- Textures/Finishes: How papers differ visually and to the touch. Each will impact ink coverage as well as the overall appearance of a printed piece.
- Functionality: Overview of most common uses for a particular grade.
- Standard Sizes: Cut sizes geared toward economic use of paper and pricing. Odd sizes will be more costly due to special ordering.
- Weight: Most common measures of weight, listed in pounds.
- Thickness: Measurement of paper is given in units, called points or mics, of 1/1000-inch. These measurements are useful to meet mailing requirements or when considering a stock for folded pieces.

PRINTING PAPER GRADES

Grade Classification	Common Names	Characteristics	Finishes/ Textures	Common Sizes	Common Weights	Sheet Thickness	Design Applications
Bond	bond, ditto, forms, erasable, forms, ledger, mimeo, photocopy, rag, onionskin, writing	lightweight, matching envelopes, pastels and light colors, watermarked	cockle, laid, linen, parchment, ripple, wove	81/2 x 11, 81/2 x 14, 11 x 17, 17 x 22, 17 x 28, 19 x 24, 19 x 28, 22 x 34, rolls	9, 12, 16, 20, 24, 28	.002 - .006 (2-6 pt.)	certificates, directories, fliers, forms, handbills, letterheads, newsletters, resumes
Uncoated Book	book, offset, opaque	easy folding, wide range of colors	antique, smooth, vellum, wove	171/2 x 221/2, 23 x 29, 23 x 35, 25 x 38, 35 x 45, 38 x 50, rolls	30, 32, 35, 40, 45, 50, 60, 70, 80	.003 - .006	books, brochures, calendars, catalogs, direct mail, manuals, fliers, newsletters, programs, rate books
Coated Book	dull, enamel, gloss, matte, slick, coated offset,	ink gloss, smooth surfaces, usually white only, good ink holdout,	cast, dull, embossed, gloss, matte	19 x 25, 23 x 29, 23 x 35, 25 x 38, 35 x 45, 38 x 50, rolls	**sheets:** 60, 70, 80, 100 **rolls:** 40, 45, 50, 60, 70, 80, 100	.003 - .007	annual reports, books, brochures, calendars, catalogs, posters, directories, direct mail, magazines, newsletters, newspaper inserts
Text	text	deckle edged, textured, wide range of colors	antique, embossed, felt, laid, linen, vellum, smooth	171/2 x 221/2, 23 x35, 25 x 38, 26 x 40	70, 75, 80, 100	.005 - .008	annual reports, calendars, anouncements, posters, books, art reproductions, self-mailers, brochures,
Cover	bristol, C1S, C2S, cast coat, cover, text cover	durable, stiff, strong	**uncoated:** linen, felt, laid, antique, wove, embossed, smooth, vellum **coated:** cast, dull, embossed, gloss, matte	20 x 26, 23 x 35, 25 x 38, 26 x 40	65, 80, 100; **calipers:** .007, .008, .010, .012, .015	.006 - .015	business cards, books, calendars, annual report covers, folders, menus, catalogs, directories, invitations, greeting cards, posters, point-of-purchase displays