

TAYLOR™

# Print Buyer's Handbook



BOOK PRINTER'S EDITION

# Book Printing Demystified

We've gathered the tools and solutions you need to be more effective, influential and competitive in your space.

This handbook was created to make your daily life easier so you can get more done.

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# Book Printing & Manufacturing

Commercial book printing is critical to a wide variety of industries. It includes the production of books, textbooks, booklets, manuals and a vast range of other publication types for organizations that sell to distributors and customers alike.

Partnering with Taylor for commercial book printing gives your organization comprehensive solutions and a competitive edge when producing professional and commercial publications. Our experience and technology allow us to produce and distribute custom books with high quality at high speed.

## Services & Solutions

Taylor combines the latest printing and binding technology with other value-added services such as design services and fulfillment solutions including warehousing and distribution. Thanks to Taylor's unique combination of capabilities, you can work with a single print partner and achieve unbeatable ROI for your project.

### Book Design Services

Taylor's experienced book design professionals work alongside you from concept to completion to craft your publication.

### Book Printing Techniques

Taylor's diverse print capabilities give you the best paper options, bindery choices, cover paper stock and cover paper weight for your projects.

### Nationwide Book Printing Network

Taylor offers unmatched capacity with 530,000 square feet of operating space in multiple locations designated for production, storage and distribution.

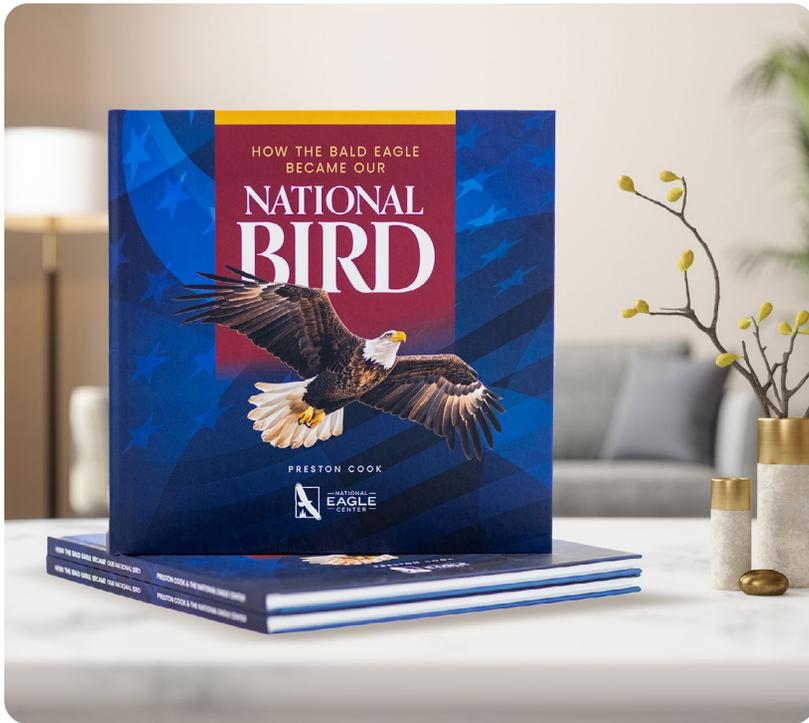
### G7® Color Management

As a G7 Certified Master printer, Taylor's investment in color management provides precise color matching across all print processes.



#### 30+ Years

Taylor is a full-service commercial book printer and manufacturer with more than 30 years of experience in the book printing industry.



## Book Printing

Taylor prints millions of books, booklets, catalogs, magazines, manuals and other publications each year. Regardless of the type of book you're looking to print, we can bring your idea to life in a variety of styles, textures and covers.

### Hardcover Books

Hardcover books offer durability and longevity and are known for their high-quality materials and aesthetic appeal.

### Softcover Books

Softcover books, also known as paperback books, are popular for their affordability, convenience and wide range of uses.

### Yearbooks

Yearbooks combine uniqueness and durability to commemorate memories, achievements and milestones.

### Catalogs

Catalogs are designed to withstand repeated handling and to showcase products and services in a visually appealing way.

### Magazines

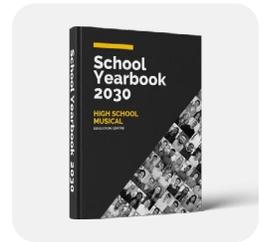
Magazines require advanced printing capabilities and quality materials alongside time-sensitive and efficient production.

### Children's Books

Children's books rely on precise printing, vibrant colors and careful attention to design to be engaging and safe for young readers.

### Journals

Journals are designed to focus on functionality, appealing aesthetics and longevity for a variety of uses, from personal to professional to academic.





## Educational & Curriculum Materials

At Taylor, we know how important print quality, color and turnaround times are in the education category. Learning materials must be produced efficiently and correctly – and delivered on time according to curriculum dates and schedules. Our book printing capabilities include the latest production technologies and paper options while our educational curriculum specialists will guide you through the unique design, production and fulfillment requirements of educational publishing.

### Textbooks

Textbooks are typically printed using offset printing, which offers high-quality results and cost-effectiveness for large print runs.

### Workbooks

Workbooks are suitable for both offset and digital printing, and are printed on durable, smooth paper to handle extensive use.

### Teacher Guides

Teacher guides can be produced in large or short print runs, are designed to be user-friendly, and are tailored to unique educational needs.

### Grade School Supplies

School supplies include custom folders, binders, flashcards, educational games and more, and are printed to meet quality, safety and educational standards.



### Free Book Samples

Have a project you want us to take a look at? Send us the specs. We'll send you samples of our work at no charge.

# Printing Capabilities

Taylor's complete line of state-of-the-art presses has enormous capacity and flexibility for short and long-run print projects. Whatever type of printing is required, we provide it.

## Offset Book Printing

Used to produce large quantities of materials, offset printing is an economical and ideal print process for books, booklets, magazines and other publications. It reproduces images clearly and is well-suited to print materials that involve large amounts of text.

## Digital Book Printing

Digital printing brings great speed and cost-effectiveness to smaller print runs and projects where extra customization and personalization are needed. It is ideal for fast-turn, lower-volume print runs and requires no printing plates.

## Additional Printing Options

Taylor's continuous investment in traditional and digital print technology gives you speed, color accuracy and variable-print advantages.

- One-color
- Two-color
- Four-color
- Sheetfed inkjet web presses



### Learn More

For more in-depth information on ink processes, see page 27.

# Book Binding Services

Taylor offers a wide selection of binding options for both hardcover binding and softcover binding. These are just some of the bookbinding services you can choose from.



## Hardcover Binding

Hardcovers are ideal for page counts ranging from 60-400. Pages are sewn together in sections and glued to the hardcover at the spine. They're best for books that require sturdiness and creative design such as yearbooks, novels, commemorative and coffee table books, and more.

## SIDE SEWN

Secures the sections of a book with thread or wire near the binding edge, from front to back through the entire thickness of the text block.

## SMYTH SEWN

Sews together folded, gathered and collated signatures with a single thread sewn through the folds of individual signatures. Available in round-back and square-back options.

## ADHESIVE BOUND

Binds loose pages into a solid text block by means of an adhesive rather than by means of sewing or stitching. Available in round-back and square-back options.



### Softcover Binding

Softcovers are commonly used for books like children's books, magazines, novels, financial reports, journals and catalogs. These bindery types have no seam between the front cover and the spine, which creates a smoother, sleeker aesthetic.



### Specialty Binding Options

In cases where hardcover or softcover binding isn't needed, other bindery options can be used. These specialty options are often used for publications such as reports, calendars, cookbooks, manuals and more.

#### PERFECT BOUND

Stacks all the pages or signatures together, roughening and flattening the spine edge and attaching the paper cover to the spine with a flexible adhesive.

#### ADHESIVE PUR-BOUND

Stacks all the pages or signatures together, roughening and flattening the spine edge and attaching the paper cover to the spine with a PUR (polyurethane reactive) adhesive. PUR is considered the most durable bookbinding adhesive available.

#### ADHESIVE BOUND LAY-FLAT

Secures loose pages into a solid text block by means of an adhesive rather than by means of sewing or stitching.

#### SMYTH SEWN LAY-FLAT

Sews together folded, gathered and collated signatures with a single thread sewn through the folds of individual signatures.

#### SADDLE STITCH

Secures the pages of a section through the center fold by means of wire staples; the term "saddle" derives from the SADDLE of the machine.

#### WIRE-O® BOUND

Books are bound along the edge using double loops of wire. This allows the book to lie flat when opened.

#### STANDARD DRILL

Three holes are punched in a finished printed piece for use in a ring binder.



#### Learn More

For more in-depth information on binding types and processes, see page 25.



## Book Fulfillment Services

Taylor offers much more than your typical professional book printer. In addition to our book printing expertise, we provide turnkey fulfillment solutions and distribution strategies to accurately produce and deliver your publications.

We have invested in state-of-the-art fulfillment centers totaling 530,000 square feet of production and storage space in distribution centers and warehouses across the country. As fulfillment experts in both warehousing and print-on-demand, we can help you find the optimal choice or blend of both solutions.

### Book Printing on Demand

Taylor offers the largest print-on-demand footprint in the U.S. Print-on-demand makes copy and version changes easier, and reduces your risk of paying for obsolete books you don't use.

Print-on-demand is ideal for shorter print runs, and for books and publications that are only needed for a limited time.

### Book Storage and Distribution

If you don't need all your publications all at once, you'll have the storage solutions you need with our state-of-the-art warehousing facilities. Storing your books keeps them readily available for shipping whenever and wherever they are needed.

#### NATIONWIDE ORDER FULFILLMENT

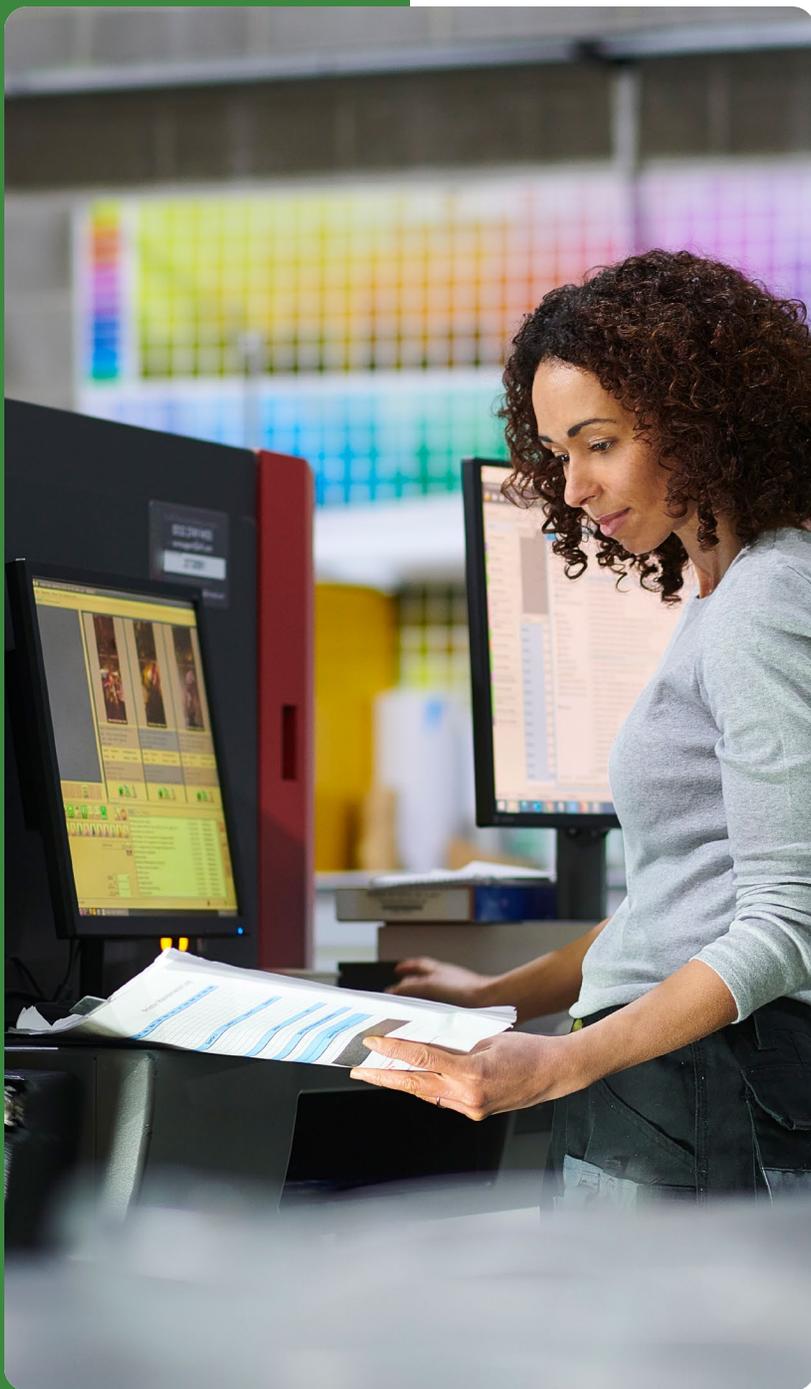
- Strategically located fulfillment and distribution centers
- Single-day coverage to most major markets
- Freight and logistics analysis

#### BOOK PRINTING INVENTORY MANAGEMENT

- Web-based ordering
- Order management
- Storage and inventory control

#### A New Approach to Book Printing

At last, you can get comprehensive book printing solutions through a single full-service commercial print partner. Contact your Taylor representative for more details about our book printing and manufacturing capabilities.



# Printing Processes

On the pages that follow, we define and demystify the lingo that is so common to the printing industry. This information will better prepare you for the finer points of book production — and any other printing services you may require along the way.



## Printing Process Basics

Different print processes can help heighten your brand's identity and marketing materials while attracting your target audience. To help you choose the right print process for your materials, we've broken them down so you can find the one best suited for your project.

### Engraving (Intaglio)

Type and graphics are etched into metal plates. The recessed images are then filled with engraving ink and paper is stamped under two tons of pressure per square inch, resulting in a raised image with startling clarity, color purity and depth. This results in a "bruise" on the back side of the stock. It is often run on thick or duplex stocks.

**PROS:** Archival life. Perception of the highest degree of professionalism.

**CONS:** One color per pass. Bruise on the back limits 2-sided content.

### Foil Stamping

Uses heated metal dies to apply foil to paper. It creates reflective images and enables the use of light colors on dark stocks. Applied flat but is frequently combined with embossing to maximize impact. Available in dull or glossy finishes.



**PRO:** Prints on dark stock, document authentication, shiny metallic prestige.

**CON:** May not be laser printer compatible. Not ideal for fine type. Some stocks may cause peeling.

### Letterpress (Typography)

Converts art and text into a rigid material (metal or photopolymer) which is used to print with any ink color. Yields recessed images which give a unique dimension and impression of a historical printing technique.



Offers a handcrafted look and feel. Like engraving, it has a very tactile quality with a slight debossing effect where ink is laid.

**PRO:** Handcrafted look and feel.

**CON:** One color per pass. Very fine type may break up, solid ink coverage can appear uneven and print area is limited to 8x10.

**TIP:** Do not use coated paper due to potential of ink offsetting to back of sheet. A heavyweight but soft paper will give the best results.

## Embossing and Debossing

Embossing adds dimension by using a metal die to raise the paper. Debossing is achieved by using a reversed out metal die to stamp (recess) the image into the paper. Both embossing and debossing can create elegant and subtle multi-dimensional images.



- **Blind Emboss:** Embossed image on paper without ink
- **Registered Emboss:** Embossed image is registered with an ink-printed image
- **Foil Emboss:** Image has foil and embossing using a single brass die. Also known as hot leaf emboss (HLE).

**PRO:** Enhanced visual appeal and elegance. Ideal for large-quantity orders that require a foil and embossed image because only a single press pass is needed.

**CON:** Multi-level embossing may jam in office printers. Die cost.

**TIP:** Avoid fine lines.

## Laser Cutting

Process where a laser beam burns through the surface of your substrate to leave a high-quality, intricate design.

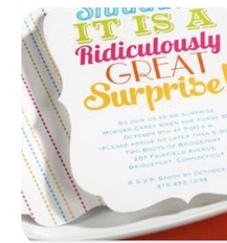


**PRO:** Ideal for cutting out hand-written text, lace-like creations, rounded edges or shapes.

**CON:** Tiny flames are created by the precise lasers which may leave a slightly burnished edge.

## Die-Cutting

A die is a thin, razor-sharp steel blade that allows multiple pieces of paper to be formed into a specific shape or pattern.



Both custom dies and common cut/shape dies are available. Dies can shape the entire perimeter, just one corner or edge, or cut out a shape from within the center of a piece. Die can be designed to create perforation.

**PRO:** Unique edges and patterns.

**CON:** Can require a knockout tab. May have a long lead time.

## Offset Lithography (Flat Printing)

Image produced using flexible aluminum, polyester, Mylar or paper printing plates. Image is laser imaged on a plate by computer-to-plate (CTP) technology, known as a plate setter. The plate is affixed to a cylinder. Dampening rollers apply water, covering the blank areas and allowing only the ink to adhere to the image area on the inking rollers.



The ink is transparent. When printing on colored stocks, it changes the color of the ink.

**PRO:** High speed and larger sheet size for a lower cost.

**CON:** More set up for complexity and longer turn time.

## Digital Lithography (Flat Printing)

Uses CMYK inks. Digital printing eliminates many steps associated with traditional printing and can provide cost savings over offset lithography.



Digital files preferred. Can be submitted in all major software types of files. It is ideal for booklets, brochures and other literature.

**PRO:** Great for a short run, print on demand with no inventory. Easy copy change. Full-color proofs.

**CON:** Not all PMS colors can be matched in CMYK.

## Thermography (Raised Print)

In either matte or dull for a shiny surface appearance. A plastic resin powder is dusted over “wet” lithography ink and the combination is heated to fuse together, causing the resin to swell and create tactility. Avoid using fine type, serif typefaces and extremely detailed artwork with small features.



**PRO:** Raised printing. Up to 2 colors per run, 9x10 image area.

**CON:** Shiny pockmarked solids. Very thin type may not rise. May not be laser printer compatible.

## Laser Raise (Raised Print)

Same as above, but special resin used in conjuncture with an ultra violet light cures the resin to a hardness that makes the raised print compatible with laser printers.

# Additional Processes & Finishing

## Silk Screen

The process of transferring a stenciled design onto a flat surface using a mesh screen, ink and a squeegee.

## Sleeking

An on-demand foil solution for short-run digital applications. To transfer the foil to paper, sleeking uses pressure and heat that specifically bonds to digital ink and some toners.

Sleeking technology can apply a simple finish, such as gloss or matte, a metallic background, such as gold or silver, or a dramatic holographic impression in spot locations or full coverage.

## Spot Gloss

The process of applying a high-gloss UV coating to a selected area on a printed piece. A common use of spot UV is to draw attention to a certain area of the printed piece.

## Gilded (Painted) and Foiled Edge

Using engraving ink or metallic paint to color the edges of paper.

## Mounting (Pasted) Cards

Gluing pieces of paper together to create one thicker sheet.

## Burnishing

Flattening or raising the texture of metallic engraving ink depending on the type of die used.

## Collating

The action of taking multiple different printed pages and putting them together into a complete set.

## Scoring

The process of making a crease in paper or cardboard, so it will fold easily. Scoring helps improve the appearance of the fold because it provides a consistent guideline and reduces the potential for the paper to buckle or crack. Scoring finish is also less likely to cause harm to toner-type inks or thick-color coats.

## Perforating

A procedure that creates a series of very fine holes in paper or card stock, usually along a straight line, to allow a portion of the printed piece to be easily detached by hand. Used for a variety of purposes, such as coupons, response cards and remittance slips.

## Numbering

Involves the printing of ascending or descending identification numbers so that each printed unit receives its own unique number. This unique number can appear in one position, or in multiple positions, on each document. Frequently used on contracts, invoices, purchase orders, quote forms, checks, raffle tickets and more.

## Padding

Applying a flexible adhesive along one edge of a stack of same-sized sheets. The adhesive secures the sheets as a unit, but allows the topmost sheet to be easily removed as needed. In most cases, padded sheets incorporate a chipboard backer for rigidity. Common examples include notepads, memo pads and order pads.

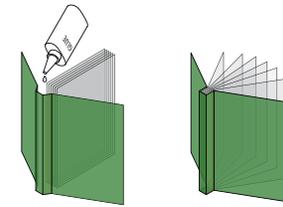
## 3-Hole Drilling

Refers to the process of creating round holes in paper using a rotating bit, such as the hole patterns needed for sheets and dividers placed into ringed binders.

# Binding Types

## Perfect Binding

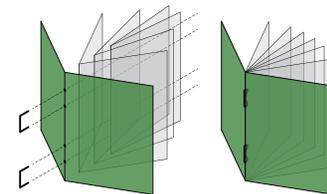
Uses glues to hold pages to the spine. The spine is part of the front cover, the front cover is bent to create the spine and then the pages are glued to this small section. This means there is no seam between the front cover and the spine, creating a smoother, more aesthetic front edge. Perfect binding allows for better wrap-around printing.



**Commonly used for soft cover books like magazines, novels, financial reports, journals and catalogs of all sizes.**

## Saddle Stitch

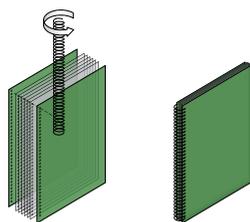
The saddle stitch binding technique takes full sheets of paper, stapled together in the center. Then the pages, including the cover, are folded in half along the line of the staple. This method is eco-friendly since it uses no paper glue.



**Commonly used for pamphlets and magazines with fewer than 100 pages.**

## Spiral Binding

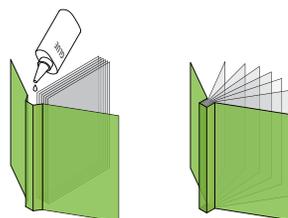
A continuous metal or plastic loop is inserted into punched holes along the spine. This binding allows books to lay flat when they are open, but the binding has to be cut off to add or remove pages from the document.



**Commonly used for reports, calendars, cookbooks and manuals.**

## Hard Cover Binding (Case Binding)

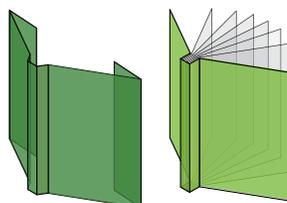
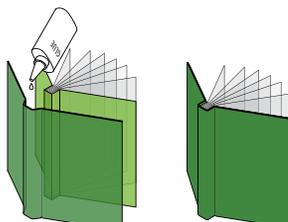
Pages are sewn together in sections and glued to the hardcover at the spine.



**Commonly used for documents with page counts ranging from 60-400.**

## Dust Jacket

A removable paper cover, generally with a decorative design, used to protect a book from dirt or damage.



## Understanding Ink

### CMYK (Cyan, Magenta, Yellow, Black)

CMYK color (also called four-color or full-color process) is a method where a combination of tiny transparent dots of four ink colors – cyan, magenta, yellow and black are printed. Different combinations of large and small CMYK transparent dots overlap each other to create a wide spectrum of colors.

**USE:** Offset and digital printing. Ideal for full-color brochures, flyers, posters and post cards, etc. or anything with a photo or image.

### PMS (Pantone® Matching System)

PMS colors (also called Pantone® colors) are patented, standardized color inks made by the Pantone Company. Designers use the color swatches produced exclusively by Pantone to pick the colors and printers refer to the same swatches. This ensures everyone works to the exact same PMS color no matter where they are.

**USE:** For offset printing only. Ideal for stationery. Often used in one or two-color jobs. Also used as spot colors on premium brochures in addition to four-color process.

## Solid Spot Colors

Creating a solid spot color on uncoated paper can be difficult. Some ink formulas use transparent white ink to create light colors, resulting in a mottled or muddy look. To smooth out solids, your printer may recommend a second press pass of ink to make the spot color last throughout the run.

**TIP:** Substituting opaque white or using a dull coating can help minimize the muddy appearance.

## Black Ink

The black produced in black-and-white printing differs significantly from the black produced in full-color CMYK printing. When creating your design, keep in mind that there are two types of black: standard black and rich black. Standard black uses only black ink (100% K), whereas rich black contains elements of other colors (Cyan, Magenta, Yellow). Because rich black uses more ink, the resulting color will be deeper and more saturated.

**TIP:** The one time you do not want to use rich black, even in a full-color CMYK project, is for very delicate lines such as small text or line art. This can cause a shadow of CMYK colors around your design or text.

# Types of Coatings

## Varnish

The most flexible coating. Varnish can be used on any weight stock and be applied over ink without bleeding. Varnish is petroleum-based and can be specified in various finishes stated previously.

**CON:** Varnishes can yellow paper over time.

## Aqueous

Aqueous is a water-based coating that can be applied over wet ink. This seals a press sheet instantly, allowing the ink to continue to dry underneath. Aqueous coatings have a matte, dull appearance and usually cover the entire sheet and prevent yellowing over time.

**CON:** Aqueous coatings are recommended for 100-lb text or heavier to avoid the risk of curling edges. Some pigments in ink are not compatible and may cause bleeding.

## Ultraviolet (UV)

UV inks and UV coating dry quickly using UV light and delivers the best rub protection and fastest drying time. UV coating can be used on smooth, cover-weight papers and can come in gloss, matte, dull or satin finishes.

**CON:** UV coatings are not compatible with text-weight paper under 100-lbs and any piece that needs to be written on.



# Printing Papers



Knowing how the coating of the paper you are printing on reacts with the ink will help in choosing the right paper for your project. There are all kinds of papers out there for you to choose – from uncoated text stock to coated cover stock, textured and more.

## Coated Paper

This paper has been coated with a surface sealant, typically clay, to impart certain qualities to the paper, including weight, surface gloss, smoothness, or reduced ink absorbency. The coating on the paper reduces dot gain by not allowing the ink to absorb into the paper. This allows for cleaner, crisper printing, especially in photos, blends and fine details. Coated papers come in numerous options: gloss, satin, matte and dull finish.

### Gloss

Paper with a high sheen. Gloss papers have less bulk and opacity and are typically less expensive than dull and matte paper of equal thickness. Gloss coatings reduce ink absorption, which gives the sheet an excellent color definition.

### Satin

A less shiny coated finish. It has a lower gloss level than gloss finish, yet a higher gloss level than matte finish. Colors are sharp and vivid.

### Matte

A non-glossy, flat looking paper with very little sheen. Matte papers are more opaque, contain greater bulk and are higher in cost. The coating still keeps much of the ink from being absorbed by the paper, which produces excellent, vibrant color.

### Dull

A smooth surface paper that is low in gloss. Dull-coated paper can fall between matte and glossy paper depending on the manufacturer.

## Uncoated Paper

Paper that has not been coated with a surface sealant is classified as uncoated. Since inks dry by absorbing into the paper, colors can appear muted.

Uncoated papers comprise a vast number of paper types and are available in a variety of surfaces, both smooth and textured. Some of the common types are wove, smooth, laid, linen and eggshell.

### Laid

Created with textured lines on its surface. This finish is used mostly for business stationery elements, like letterhead, envelopes and business cards.

### Wove or Smooth

This is a non-textured smooth surface.

### Linen

Similar to a laid finish, this paper has textured lines on the surface of the sheet, but they are finer and more regular than those that appear on a laid finish stock. This paper is also used frequently for business stationery.

### Eggshell

A paper that has a slight texture. When looked upon closely you'll see tiny peaks and valleys on the paper, like on an eggshell.

## Coated One Side & Coated Two Sides

Coated one side, commonly referred to as C1S, is a paper that has a coating applied to only one side of the paper. Coated two sides (C2S) paper has a coating applied to both sides of the paper.

**TIP:** Use C1S for when you need to keep at least one side uncoated if the item will be written on, example, holiday cards.

## Cotton Paper

Also known as rag paper or rag stock paper. It's made using cotton linters (fine fibers that stick to the cotton seeds after processing) or cotton from used cloth (rags) as the primary material. As a more environmental option, cotton paper is more durable for important documents. Cotton paper is typically graded as 25%, 50% or 100% cotton.

## Paper Characteristics

### Opacity

A paper's opacity is determined by its weight, ingredients and absorbency. A paper's opacity determines how much printing will show through on the reverse side of a sheet. Opacity is expressed in terms of its percentage of reflection. Complete opacity is 100% and complete transparency is 0%.

### Finish/Smoothness

Paper smoothness refers to the amount of evenness the surface of the paper possesses. Factors that play into how smooth the finished paper is include the type of material used to make the paper and the surface, or finishing treatment it receives in the later phases of production. Finish or smoothness affects ink receptivity and ink holdout. The smoothness of paper is measured on the Sheffield scale — the higher the value, the rougher the sheet.

### Brightness

The brightness of a sheet of paper measures the percentage of a wavelength of blue light it reflects. The brightness of a piece of paper is typically expressed on a scale of 1 to 100 with 100 being the brightest. The brightness of a paper affects readability, the perception of ink color and the contrast between light and dark hues.

# Paper Weight

The weight of a paper refers to its thickness and is typically measured in pounds (such as 20-lb) and points (such as 10 pt). The higher the number, the thicker the paper for that “type” of paper. Paper weights in commercial printing can be very confusing. For example, a sheet of 20-lb bond (probably what you use on your inkjet printer) is about the same thickness as a sheet of 50-lb offset.

**Listed below are attributes that factor into paper weight and thickness.**

## Writing

A letterhead weight stock, typically 24-lb or 28-lb writing and often has a watermark.

## Text

Is thicker than writing paper, but not as thick as a cover paper (card stock). Text-weight paper is usually a 70-lb, 80-lb or 100-lb text.

## Cover

Cover stocks are heavy in weight, rigid and not easily folded. Common weights for cover stocks include: 65-lb, 80-lb, 100-lb, 120-lb and 12pt.

## Bond

Bond paper is made up of cotton rags or cotton textile fibers, which gives it a thicker, more substantial texture. High-quality bond paper is composed of anywhere from 20% to 100% cotton rag fiber, which gives the paper its durability. This type of paper is stronger than paper made solely from wood pulp.

Because of its unique composition, bond paper has a specific weight. Bond paper weight (or thickness) is at least 20-lb bond weight or 50-lb text weight.

## Grams Per Square Meter (GSM)

GSM is how manufacturers and printers identify the measurement of paper. The higher the GSM, the heavier and thicker the paper.

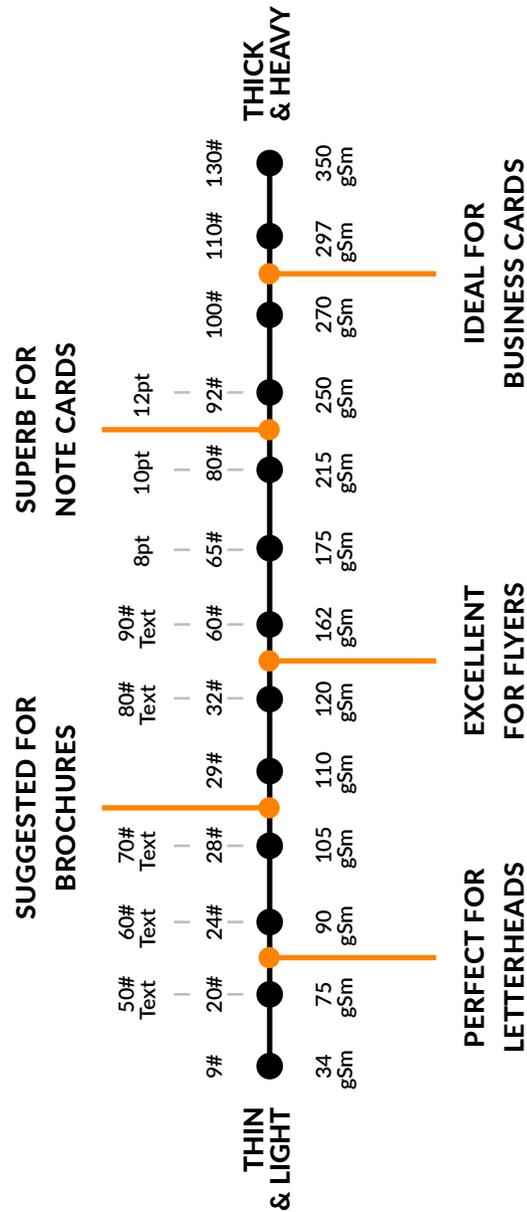
**TIP:** When in doubt, request a stock sample.

## Things to Note

- A high wood fiber content can increase the thickness and weight of paper.
- To achieve certain visual and tactile results, some paper processors include additives to the pulp.
- The type of processing used can affect the density of the paper, with a higher-density pulp creating thinner paper and a lower-density pulp creating thicker paper.

Weight is important in print because the wrong weight of paper can lead to issues while printing. For example, if you choose a very light paper for a brochure, you may be able to see through the sheet which ruins the look of the print on both sides.

# Paper Weight Guide



# Reading Stock Names

Have you ever received a sample of paper stock and wondered what all the numbers and colors mean on the label? Here is a guide to reading the stock label so you're not left wondering.

**SAMPLE:** 100-lb Neenah, Classic Crest, Cover, Solar White, Smooth

<b>BASIS WEIGHT</b>	100 lb
<b>PAPER MILL</b>	Neenah
<b>BRAND</b>	Classic Crest
<b>WEIGHT TYPE</b>	Cover
<b>COLOR</b>	Solar White
<b>FINISH</b>	Smooth

**SAMPLE:** 80-lb Mohawk, Strathmore, Text, Bright White, Super Smooth

<b>BASIS WEIGHT</b>	80 lb
<b>PAPER MILL</b>	Mohawk
<b>BRAND</b>	Strathmore
<b>WEIGHT TYPE</b>	Text
<b>COLOR</b>	Bright White
<b>FINISH</b>	Super Smooth

# Weight Comparison Chart

When selecting paper stock for a project, it's important to keep in mind the equivalents of each paper. The chart below will be able to tell you how thick the paper will be and guide you in making the right selection.

BOND LEDGER	TEXT BOOK	COVER CARDSTOCK	INDEX	PT
16	40	22	33	3.2
18	45	24	37	3.6
20	50	28	42	3.8
24	60	33	50	4.8
28	70	39	58	5.8
29	73	40	60	6
31	81	45	66	6.1
35	90	48	74	6.2
36	90	50	75	6.8
39	100	54	81	7.2
40	100	56	83	7.3
43	110	60	90	7.4
44	110	61	92	7.6
47	120	65	97	8
53	135	74	110	9
54	137	75	113	9
58	146	80	120	9.5
65	165	90	135	10
67	170	93	140	10.5
72	183	100	150	11
76	192	105	158	13
82	208	114	170	14
87	220	120	180	15
105	267	146	220	18

## Understanding How to Use the Chart

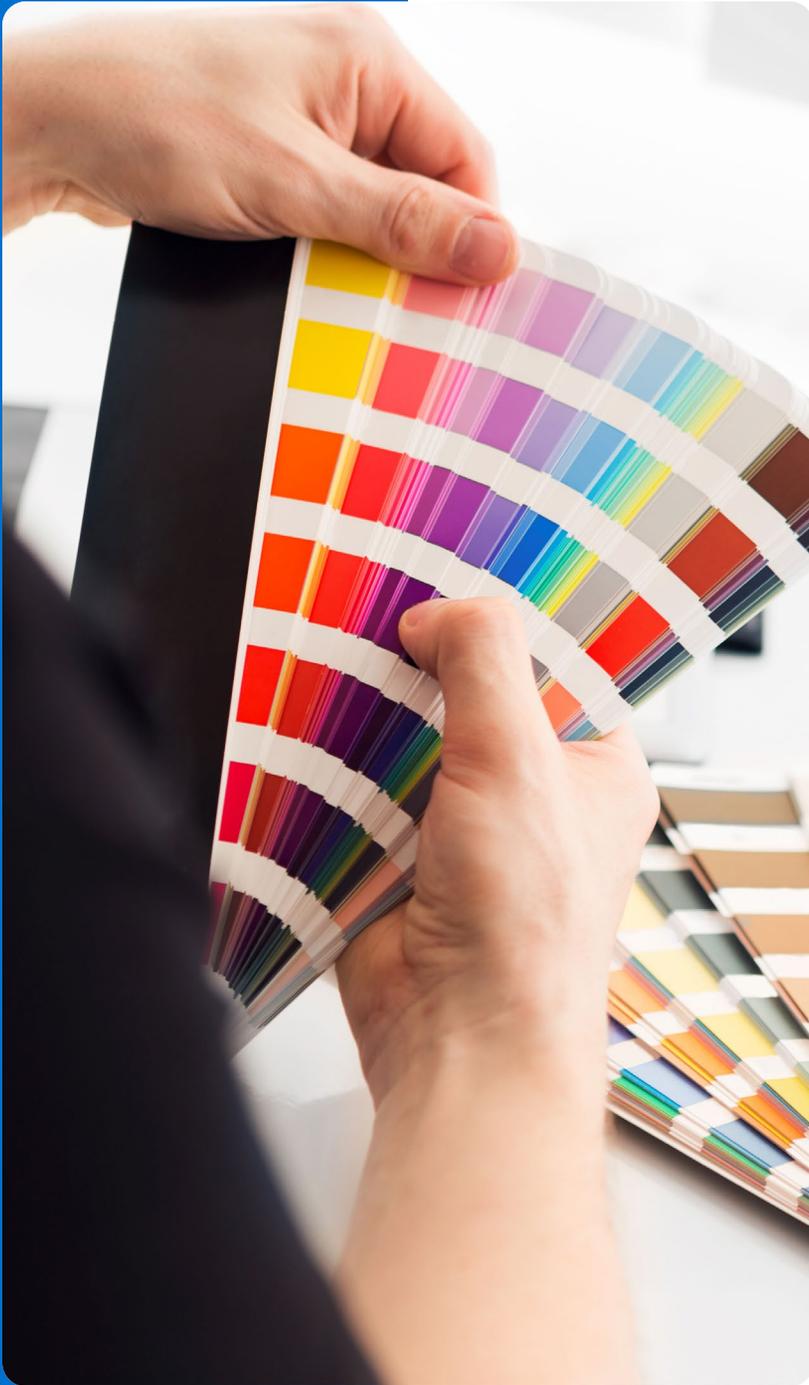
Bond, Text and Cover are usually in lb (#). Sometimes they can be referred to in points (pt).

Let's say that the short run brochures offer:

- 100-lb Gloss Book
- 100-lb Matte Book
- 80-lb Gloss Cover
- 80-lb Matte Cover
- 80-lb 100% Recycled Uncoated Text
- 80-lb 100% Recycled Uncoated Cover

Numbers can be deceiving with paper weights, which is why it's important to refer to the chart. For example, the 100-lb book stock can equate to 54-lb cover, while the 80-lb cover can equate to 146-lb book. This means that the 80-lb cover can be about 45% thicker than the 100-lb book.

The recycled 80-lb text (aka book) can be equivalent to roughly a 44-lb cover. So the two recycled stocks, while the same weight, can be different thicknesses.



# Tools

## Collaboration is Key

The following section identifies various types of measurement tools and guidelines. When thinking about print, consider Taylor Corporate Identity & Branding to be another tool in your toolbox. We can be an ultimate resource for streamlining processes, cutting costs, identifying unique solutions and providing insight on the latest technologies and processes.

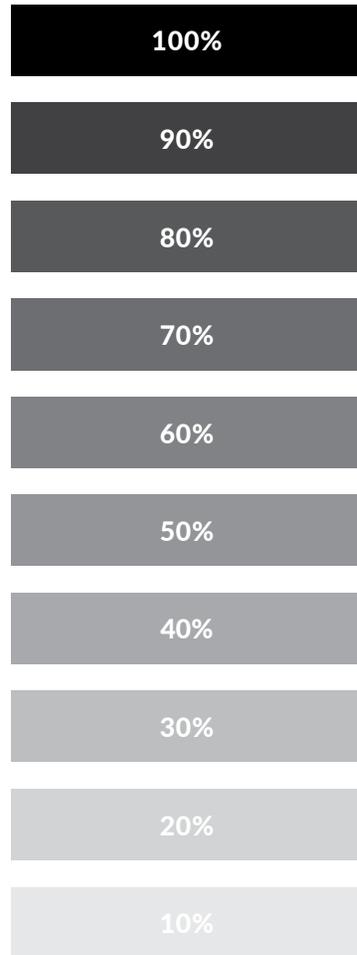
# Fraction-to-Decimal Table

	INCHES	MILLIMETERS
$\frac{1}{64}$	.015625	.3969
$\frac{1}{32}$	.03125	.7938
$\frac{3}{64}$	.046875	1.1906
$\frac{1}{16}$	<b>.0625</b>	1.5875
$\frac{5}{64}$	.078125	1.9844
$\frac{3}{32}$	.09375	2.3813
$\frac{7}{64}$	.109375	2.7781
$\frac{1}{8}$	<b>.125</b>	3.1750
$\frac{9}{64}$	.140625	3.5719
$\frac{5}{32}$	.15625	3.9688
$\frac{11}{64}$	.171875	4.3656
$\frac{3}{16}$	<b>.1875</b>	4.7625
$\frac{13}{64}$	.203125	5.1594
$\frac{7}{32}$	.21875	5.5563
$\frac{15}{64}$	.234375	5.9531
$\frac{1}{4}$	<b>.250</b>	6.3500
$\frac{17}{64}$	.265625	6.7469
$\frac{9}{32}$	.28125	7.1438
$\frac{19}{64}$	.296875	7.5406
$\frac{5}{16}$	<b>.3125</b>	7.9375
$\frac{21}{64}$	.328125	8.3344
$\frac{11}{32}$	.34375	8.7313
$\frac{23}{64}$	.359375	9.1282
$\frac{3}{8}$	<b>.375</b>	9.5250
$\frac{25}{64}$	.390625	9.9219
$\frac{13}{32}$	.40625	10.3188
$\frac{27}{64}$	.421875	10.7157
$\frac{7}{16}$	<b>.4375</b>	11.1125
$\frac{29}{64}$	.453125	11.5095
$\frac{15}{32}$	.46875	11.9063
$\frac{31}{64}$	.484375	12.3032
$\frac{1}{2}$	<b>.500</b>	12.7001

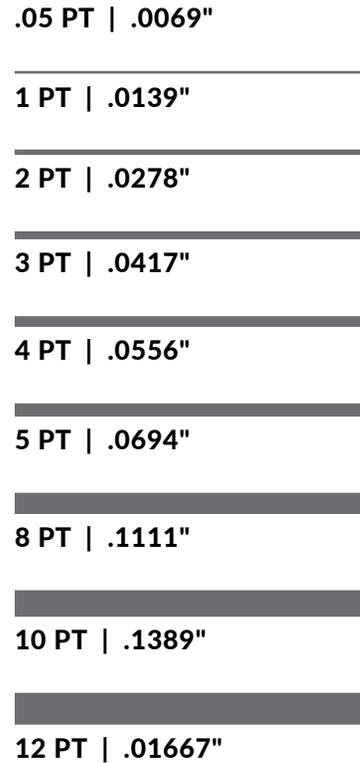
	INCHES	MILLIMETERS
$\frac{33}{64}$	.515625	13.0969
$\frac{17}{32}$	.53125	13.4938
$\frac{35}{64}$	.546875	13.8907
$\frac{9}{16}$	<b>.5625</b>	14.2876
$\frac{37}{64}$	.578125	14.6844
$\frac{19}{32}$	.59375	15.0813
$\frac{39}{64}$	.609375	15.4782
$\frac{5}{8}$	<b>.625</b>	15.8751
$\frac{41}{64}$	.640625	16.2719
$\frac{21}{32}$	.65625	16.6688
$\frac{43}{64}$	.671875	17.0657
$\frac{11}{16}$	<b>.6875</b>	17.426
$\frac{45}{64}$	.703125	17.8594
$\frac{23}{32}$	.71875	18.2563
$\frac{47}{64}$	.734375	18.6532
$\frac{3}{4}$	<b>.750</b>	19.0501
$\frac{49}{64}$	.765625	19.4470
$\frac{25}{32}$	.78125	19.8438
$\frac{51}{64}$	.796875	20.2407
$\frac{13}{16}$	<b>.8125</b>	20.6375
$\frac{53}{64}$	.828125	21.0345
$\frac{27}{32}$	.84375	21.4313
$\frac{55}{64}$	.859375	21.8282
$\frac{7}{8}$	<b>.875</b>	22.2251
$\frac{57}{64}$	.890625	22.6220
$\frac{29}{32}$	.90625	23.0188
$\frac{59}{64}$	.921875	23.4157
$\frac{15}{16}$	<b>.9375</b>	23.8126
$\frac{61}{64}$	.953125	24.2095
$\frac{31}{32}$	.96875	24.6063
$\frac{63}{64}$	.984375	25.0032
<b>1</b>	<b>1.00</b>	25.4001

# Densities

## Color Density



## Line Weights



# Finishing

## Rounded Corners



## Drill Holes



# Fold Guide

## Tri/Roll Fold

Sheet is creased twice to create six pages. The right-hand panel is normally trimmed 2mm smaller depending on the paper weight to allow it to be folded neatly into the larger pages.

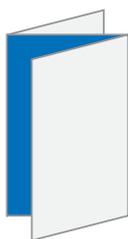
**Example: Basic utility bill (folded in thirds)**



## Z Fold

A 'Z' fold is creased twice, using two parallel folds made in the opposite direction and creates a document resembling the letter Z. This creates 6 equally sized pages.

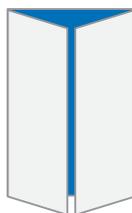
**Example: Company brochure, flyers or menus**



## Gate Fold

Sheet is creased twice to create six pages. The right and left pages are half the size of the center page. They fold inward to meet in the middle of the page.

**Example: Gala invitation**



## Bi Fold/Half Fold

Sheet is folded in half vertically. This creates 4 pages, front cover, back cover and two internal pages.

**Example: Thank you card**



## Tent Fold

Sheet is folded in half horizontally creating four pages: front cover, back cover and two internal pages.

**Example: Place setting card**



## Accordion Fold

Uses a series of alternating folds to create multiple panels of a similar size. The parallel pleats formed by the alternating folds resemble the expandable mid-section of an accordion musical instrument.

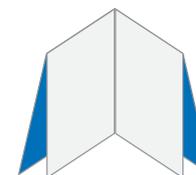
**Example: Multi-page brochures**



## French/Quarter Fold

A folding of a sheet printed on one side into four or more leaves so that the outside pages read consecutively.

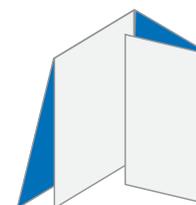
**Example: Brochures and pamphlets**



## Map Fold

Paper is folded in half, then each panel is folded again in half in opposite directions. 8.5" x 14" is the standard brochure size for the parallel map fold.

**Example: Maps**





## Design Basics

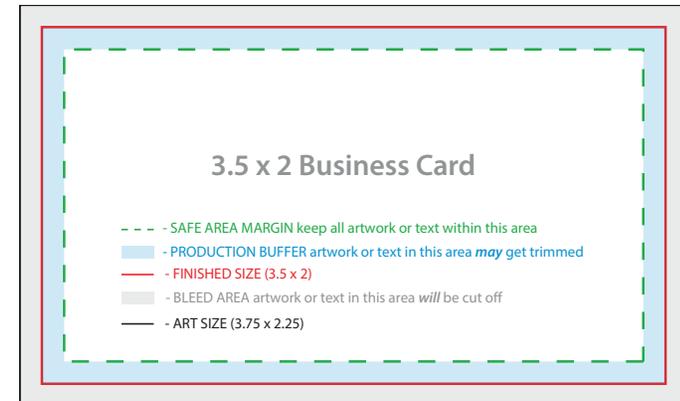
### Bleeds

When setting up your page, you'll want to remember to include a bleed. A bleed is when you let your colors, images and texts extend across the trim of the page. This ensures there is no white margin (or border) around the document after printing. When you are exporting your document, remember to add 1/4 inch of space for your bleed.

### Color

When preparing a document for print design, set the color mode to CMYK. This stands for cyan, magenta, yellow and black. Be careful that your design software isn't set at RGB, which is used for the web.

CMYK dates back to the printing press when each color needed to be applied separately. Now, printing is a little more efficient, but due to the setup of our design software and printers, the industry standard still operates from a CMYK basis to ensure the proper color is used.

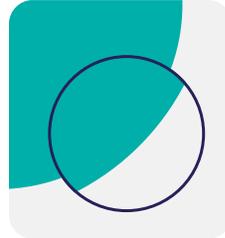


# Image Formats

The two major image formats you need to know about are raster and vector. Each of these popular image file formats has its own specifications.

## Vector Graphics

Composed of paths to form different shapes like polygons, which eventually form the image. Those paths are connected with dots, only visible while editing.



### File formats for vector:

- .ai (Adobe Illustrator document)
- .eps (Encapsulated PostScript)
- .svg (Scalable Vector Graphic)
- .pdf (Portable Document Format; only when saved from vector programs)

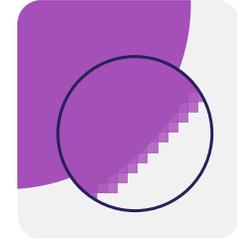
### Commonly used for:

- Mathematical curves and lines
- Logos, type and geometric designs
- Smaller file sizes



## Raster Graphics (Bitmaps)

Raster graphics are made up of rectangular pixels with each rectangle containing a single color. They are arranged in a grid to form the final image.



### File formats for raster:

- .tiff (Tagged Image File Format)
- .psd (Adobe Photoshop Document)
- .pdf (Portable Document Format)
- .jpg (Joint Photographics Expert Group)
- .png (Portable Network Graphic)
- .gif (Graphics Interchange Format)
- .bmp (Bitmap Image File)

### Commonly used for:

- Pixel-based files
- Best for photographs
- Shareability
- Large file size

# Mailing Guidelines

## Standard Sizes

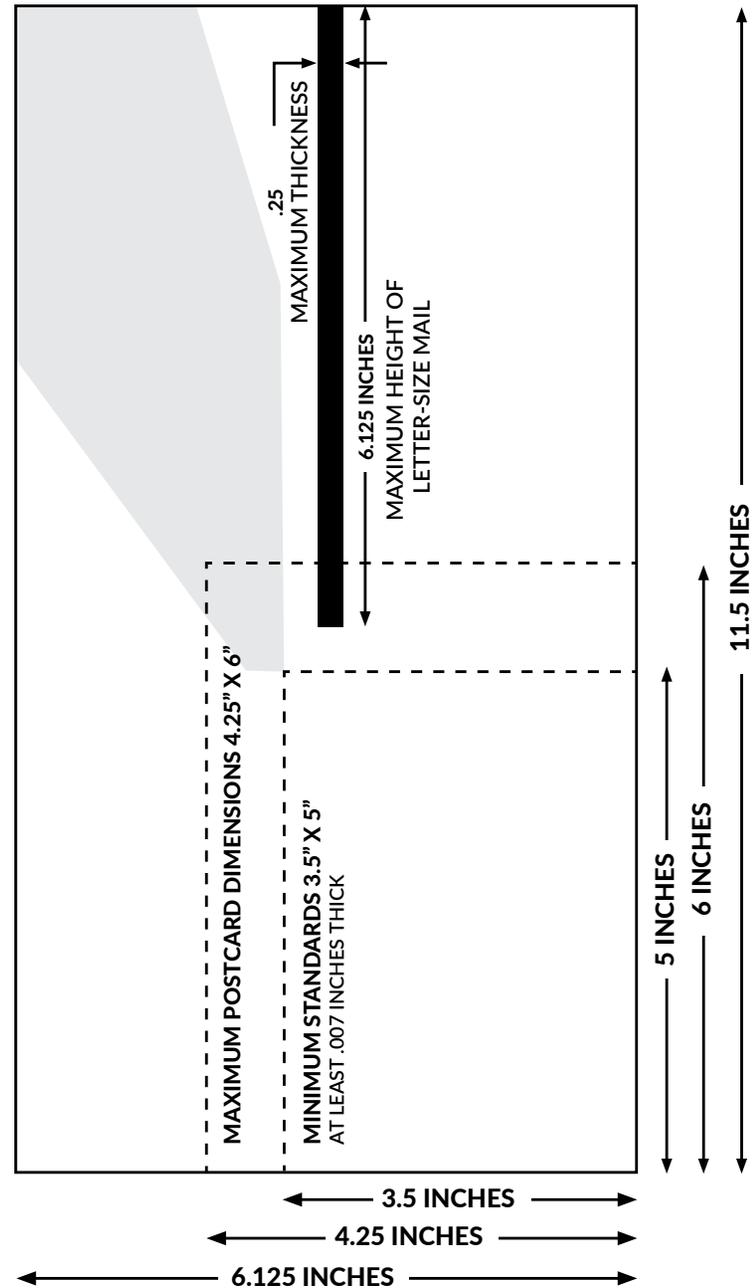
- The tip of the upper right of the mailing piece must touch the shaded area to be mailed at regular postage.
- A surcharge will be added to non-standard mail.\*



## Nonstandard First Class Mail

A piece of First-class or Third-Class Single Piece Rate Mail weighing 1 ounce or less is nonstandard if it exceeds any of the following size limits:

- Its length exceeds 11.5 inches
- Its height exceeds 6.125 inches
- Its thickness exceeds .25 inch
- Its aspect ratio (length divided by height) does not fall between 1 to 1.3 and 1 to 2.5





# A-Z Guide

## The Simplicity of a Single Source

Taylor is one of the largest print and communications companies in North America with capabilities that extend far beyond the printing and manufacturing of books. In fact, nearly every type of printed communication and marketing device can be sourced through Taylor including:

- Business cards and corporate identity products
- Commercial print services
- Creative design services
- Customer communications management (CCM)
- Direct mail and omnichannel communications
- Document management solutions
- Gift cards and card services
- Labels and packaging products
- Promotional marketing items
- Signs, graphics and trade show displays
- Warehousing, kitting and fulfillment services

This **A-Z Guide** illustrates the countless other ways Taylor supports book publishers and buyers nationwide. Contact your Taylor representative for more details.

# What We Can Offer

## A

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ADA Signage  
Address Labels  
Adhesive Business Cards  
A-Frame Signage Board  
Announcement Cards  
Announcement Envelopes  
Apparel  
Authenticity Cards  
Architectural Signage  
Awards

Bookmarks  
Books  
Bridal Shower Invitations  
Brochures  
Buck Slips  
Building Wraps  
Bumper Stickers  
Business Cards  
Business Forms  
Business Reply Envelopes  
Business Stationery

## B

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Backpacks  
Badges  
Bags  
Banking Envelopes  
Banner Stands  
Banners  
Binders  
Bindery  
Birth Announcements  
Blister Packaging  
Booklet Envelopes  
Booklets

## C

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Calendar Cards  
Calendars  
Carbonless Forms  
Card on Carrier  
Card Packs  
Catalog Envelopes  
Catalogs  
CD Packaging  
Certificates  
Checks  
Children's Books  
Coasters

Collated Business Cards  
Commercial Print  
Communication Boards  
Company Stores  
Compliment Cards  
Computer Labels  
Corporate Identity Products  
Corporate Stationery  
Coupons  
Creative Services  
Cups  
Custom Envelopes  
Custom Packaging  
Custom Post-it® Notes  
Customer Communications

## D

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Data Optimization  
Data Solutions  
Design Services  
Desk Accessories  
Desk Calendars  
Diecut Items  
Diploma Covers  
Direct Mail

Direct Marketing  
Discharge Patient Folders  
Door Hangers  
Drinkware  
Durable Labels

## E

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Embossers  
Engraved Business Cards  
Envelopes  
Event Displays  
Event Signage  
Event Tickets  
Expandable Folders

## F

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Feather Flags  
Floor Decals  
Flyers  
Foil Labels  
Folders  
Folding Cartons  
Forms  
Fulfillment

## G

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Gift Cards  
Graduation Announcements  
Greeting Cards

## H

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Handbooks  
Hang Tags  
Hardcover Books  
Hats  
Healthcare Labels  
Holiday Cards  
Holiday Gifts  
Hosted Services

## I

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Identification Cards  
Index Tabs  
Indoor Signs  
Injection In-Mold Labels  
In-Mold Labels  
Inserts  
Inspection Folders  
Inventory Management  
Invitations  
Invoices

## J

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Journals

## K

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Keychains  
Kitting

## L

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Labelers  
Labels  
Lanyards  
Legal Folders  
Lenticular Signage  
Letterhead  
License Plate Labels  
Literature Folders  
Loyalty Cards  
LP Packaging  
Luggage Tags

## M

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Machine-Applied Labels  
Magazines  
Magnetic Badges  
Magnetic Business Cards  
Magnetic Signs  
Magnets  
Mailers

Mailing Envelopes

Mailing Labels

Mailing Services

Manuals

Marketing Collateral

Media Packaging

Membership Cards

Memo Pads

Menus

Metal Badges

Metallic Badges

MICR Documents

Mobile App Development

Mobile Strategy and  
Development

Monarch Letterhead

Money Envelopes

Monthly Planners

Mugs

## N

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Name Badges

Nameplates

Napkins

NCR Forms

Newsletters

Notary Stamps

Notecards

Notepads

Notebooks

## O

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Occasion Cards

Office Signage

Office Stationery

Order Fulfillment

Outdoor Signs

## P

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Packaging

Padfolios

Pamphlets

Party Invitations

Pennant Banners

Pens

Personalized Stationery

Pick and Pack

Picture Frames

Place Cards

Plastic Badges

Playing Cards

Point of Purchase Displays

POP Signage

Pop-Up Displays

Portfolios

Postcards

Post-it® Notes  
Posters  
Presentation Covers  
Presentation Folders  
Pressure Sensitive Labels  
Price-Marking Labelers  
Printer Labels  
Programs  
Promotional Products  
Proposal Covers  
Proposal Forms  
Publications  
Purchase Orders

## R

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Rack Cards  
Report Covers  
Response Cards  
Retail Packaging  
Retractable Banners  
Return Address Labels  
Rewards Cards  
Roll-Fed Labels  
Rubber Stamps

## S

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Safety Labels  
Save the Date Cards

Seals  
Second Sheets  
Secure Communications  
Self Mailers  
Sell Sheets  
Shelf Talkers  
Shrink Sleeve Labels  
Signage  
Signs  
Soft-Cover Books  
Specialty Folders  
Stampers  
Stamps  
Statements  
Stationery  
Stickers  
Stored Value Cards

## T

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Table Runners  
Table Tents  
Tablecloths  
Tabs  
Tags  
Tax Covers  
Technology Consulting  
Technology Items  
Tent Cards

Thank You Notes  
Thermal Labels  
Tickets  
Tote Bags  
Trade Show Displays  
Travel Tumblers  
Tyvek Envelopes

## U

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Umbrellas

## V

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Vehicle Wraps  
Vinyl Banners  
Vinyl Letters  
Volunteer Cards

## W

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Wall Calendars  
Wall Decals  
Wall Signage  
Water Bottle Labels  
Water Bottles  
Wayfinding Signage  
Weather-Resistant Labels  
Will Covers  
Window Clings  
Window Envelopes

Wine Labels  
Wood Badges  
Wristbands  
Writing Instruments

## Y

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Yard Signs  
Yearbooks



# — Behind every great brand, there's Taylor.

Find out how Taylor can help support and overcome  
the strategic challenges facing your industry.

[taylor.com](https://taylor.com)

**TAYLOR**<sup>™</sup>

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