Prepare your files for the Panda printing process!

V.4

GRAPHIC DESIGN GUIDEBOOK

panda
GAME MANUFACTURING

INTRODUCTION

Hello game designers, publishers, graphic designers, artists, illustrators, layout specialists, and everyone else who creates board games!

Welcome to the latest edition (version 4) of the Panda Graphic Design Guidebook (formerly the Design Guidebook). An industry leading information source since 2015, our latest guidebook contains some exciting changes and updates, including a streamlined file requirements list, easy-to-use checklists for each print component type, and updated information throughout.

Within these pages you will discover the secrets to properly creating files for the Panda Game Manufacturing printing process. Our goal is to get you through the design verification process and into manufacturing your game as quickly and easily as possible. This guidebook and the many resources available at www.pandagm.com are the tools to make that happen. All of us at Panda look forward to being your partner as you create a great new board game!

Sincerely,

The Panda Team

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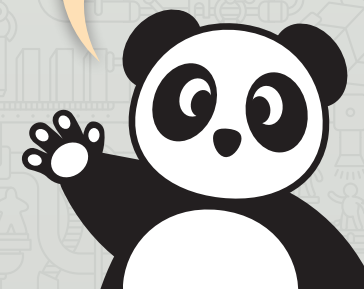
GENERAL INFORMATION & SPECIFICATIONS

PRINT COMPONENTS

GLOSSARY

Look for this icon throughout the guide to find additional useful resources:

Downloadable Content Available

Keep an eye out for me, too! I'll pop in from time to time with my best tips and suggestions.

Every project at Panda goes through our design verification process in order to produce the highest quality board games possible. So what's involved? First, we provide you with a special project page where you'll upload your print component PDF files. Then a dedicated member of the Panda prepress team checks your files and sends you a report highlighting issues that need to be corrected before moving into the production phase. It may take several rounds of uploads, prepress reports, and corrections before your files are ready for production, but the results are worth it.

WANT TO MAKE THE PROCESS FASTER? In addition to following all the great tips in this guidebook, here are two useful tools available on the Panda website:

Export Profile: Panda recommends using a FOGRA39 color profile for your PDF. FOGRA39 is an industry standard and provides the best color calibration and consistency with our factory's printing presses. Download the Panda Export Profile from our website.

Preflight Profile: Level up your game by installing the Panda Preflight Profile in Adobe Acrobat. Running this tool will check your files for common problems that need correcting including low resolution images, RGB images, and the use of spot colors. Visually check your files in Acrobat to see if content is on the correct layer, to confirm that separate PDF's are being properly combined into a single PDF (for cards), and to ensure that dielines are not included in the artwork.

The Panda Export Profile and Preflight Profile are available for download from our Tools page at pandagm.com/tools

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Adobe software is recommended when creating print files. Using the right software for the task can make file preparation easier.

Id

Use InDesign for final layout (especially text placement) and PDF generation.

Ai

Use Illustrator to create vector graphics and icons.

Ps

Use Photoshop to create raster illustrations and edit images.

Note: Panda strongly advises against using Photoshop to create your final PDFs. Please use Adobe InDesign (preferred) or Adobe Illustrator instead. If you must use Photoshop, please plan for additional time with your prepress checks and revisions.

Use Acrobat to review your PDFs before uploading them.

FILE PREPARATION AT A GLANCE

Properly preparing your files means you spend less time in design verification. Following the guidelines and instructions in this book will help your files meet Panda printing standards and get you into mass production sooner.

Unfamiliar with Panda's printing standards? We strongly urge you to read this entire guidebook. Please follow all the best practices inside, but keep these five basic requirements in mind for all files you submit to Panda for print.

THE BASIC FIVE: All print material files should follow these five important requirements:

1. Submit all files as PDFs
2. Format all files in CMYK color
3. Set image resolution to 300ppi or above
4. Make sure all files have 3mm of bleed and at least 3mm of margin
5. Format black text with pure black (C:0% M:0% Y:0% K:100%) and set to overprint

Different components (box, cards, rulebooks, etc.) may have additional requirements. Check each component's guidebook page for a simple checklist summary in the sidebar.

Using an illustrator? Ask them to read and follow the technical specifications in this guidebook. This will prevent issues from cropping up later in the process that are difficult to resolve!

Example of a checklist for easy reference:

✓ **THE BASIC FIVE:**

☐ Format: **PDF***
☐ Color mode: CMYK
☐ Resolution: 300+ppi
☐ Bleed & margins: 3mm
☐ Text: pure black

✓ **SPECIFIC TO CARDS:**

☐ *Upload decks as **multi-page** PDFs
☐ Follow file format for fronts and backs
☐ Use "border black" when applicable

BASIC FILE REQUIREMENTS

1. SUBMIT ALL FILES AS PDFS: Creating a PDF is pretty easy these days. When saving your PDF, keep in mind:

- Your PDF should be compatible with Acrobat 7 (PDF 1.6) or higher.
- Your PDF should use the color profile FOGRA 39 (ISO12647-2) to match our factory's color calibration.
- Do not include trim marks, registration marks, or color bars.

2. FORMAT ALL FILES IN CMYK COLOR: Large scale commercial printing uses an offset printing process, most commonly using CMYK plates (Cyan, Magenta, Yellow, blacK). All files must be submitted in CMYK color format. ***Do not use RGB colorspace for your files***. RGB is a format for onscreen images, not printing. For more information on the CMYK printing process, see page 8.

3. SET IMAGE RESOLUTION TO 300PPI OR ABOVE: Print industry standards require all images to be 300+ ppi (pixels per inch). Using lower resolution images could make your images appear blurry or pixelated.
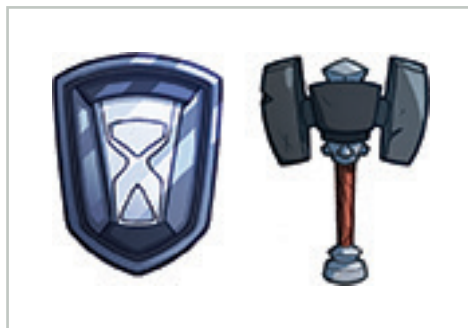
✗ *The illustration above is only 72ppi and will print poorly*

✓ *The illustration above is 300ppi and will print with no issues*

BASIC FILE REQUIREMENTS (CONT.)

4. MAKE SURE ALL FILES HAVE 3MM OF BLEED AND AT LEAST 3MM OF MARGIN: We commonly find bleed and margin issues during prepress checks, but they are easy to avoid!
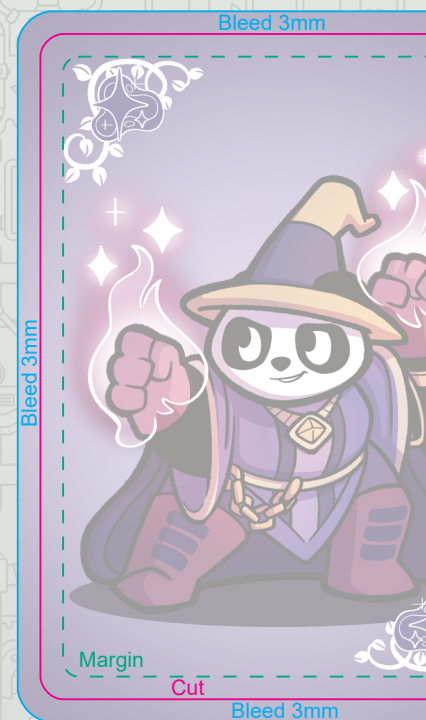
Bleed is a printing term referring to artwork that goes beyond the edge of the dieline (or cut line) for your component. Background artwork and colors should extend at least to the edge of the bleed line. Maintaining the recommended bleed ensures that unprinted edges do not accidentally appear on your components. All files require at least 3mm of bleed around every side of the component; some components may require more.

Margin (sometimes known as "safe zone") is the area between the main content and the edge of your component. Most printed components have a trim tolerance of +/-1mm. Keeping your margin free of text or images means that your content won't be unintentionally cut off and the final product won't appear off-center. Please keep important artwork and all text within the margin line.

Use a larger than required margin for text on print components to keep the component from appearing crowded!

Bleed 3mm
Bleed 3mm
Bleed 3mm
Margin
Cut

You can see the margin line, dieline (or cut line), and bleed line overlaid on this card sample. All of the content is properly laid out within the margin line and there is 3mm between the margin line and the cut line. The background then extends an additional 3mm to the bleed line.

5. FORMAT BLACK TEXT WITH PURE BLACK (NOT RICH BLACK) AND SET TEXT TO OVERPRINT: Our eyes are trained to notice extremely small variations when we read text. Even the smallest misalignment using multiple printing plates can make thin text appear slightly blurry. But formatting all text in Pure Black (C:0% M:0% Y:0% K:100%) allows us to use a single printing plate for text. That means text comes out as sharp and easy to read as possible.

OFFSET PRINTING

Panda creates your components using offset printing, which is a common large scale commercial printing process. Offset printing uses just four colors of ink – Cyan, Magenta, Yellow, and blacK (CMYK) – to create millions of possible hues. This method produces accurate colors and can quickly handle extremely large print runs.

PRINTING WELLS: An offset printing press has "wells" that hold the four ink colors. A fifth well can hold a PMS spot color, metallic ink, or even another well of black ink for international languages (see page 9).
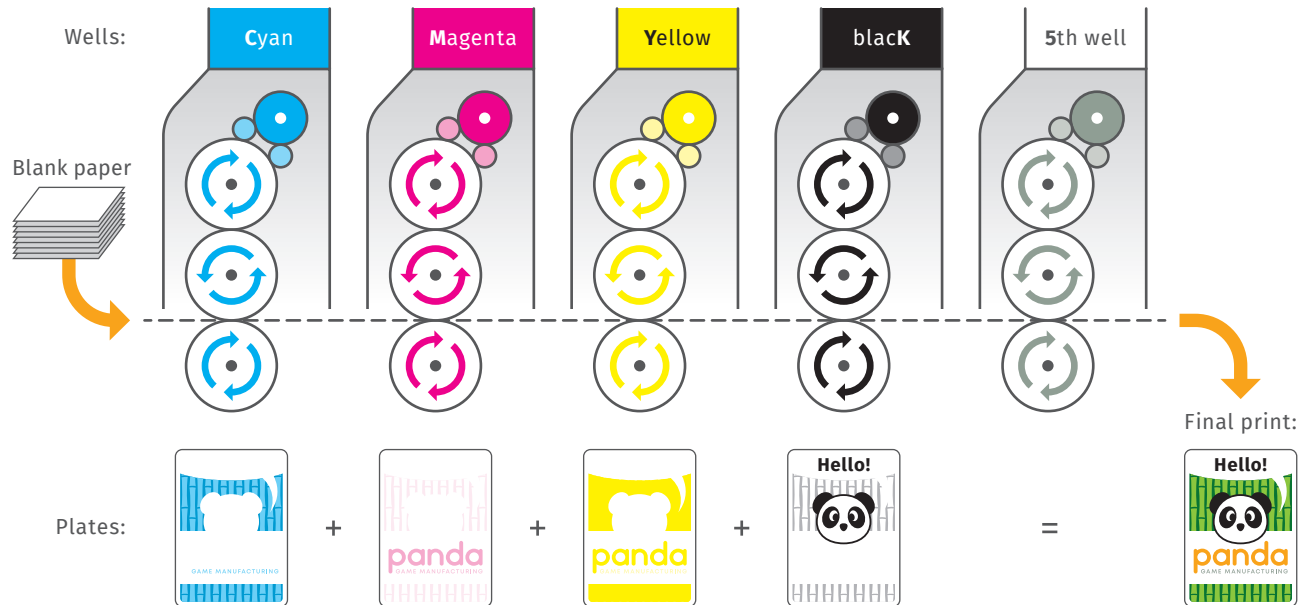
THE PROCESS: To prepare for offset printing, a print file is separated into its individual CMYK colors. The final image for each different color is applied to a metal plate. These plates are then loaded into the press, ink is applied to the plate, the inked image is transferred (offset) from the metal plate to a rubber mat, and then onto the printed surface. Individual sheets are run through the press at the speed of a thousand sheets an hour!

M: 60%
Orange
Y: 85%

C: 85%
Green
Y: 100%

M: 75%
Purple
C: 65%

Millions of different hues can be achieved by combining various intensities of two, three or all four CMYK inks.

TIPS FOR MULTIPLE LANGUAGES

Printing your game in multiple languages can bring it to more players around the world and be very rewarding. Multilanguage printing also comes with unique challenges. If you plan ahead when you prepare the original language files, though, you can make it easier to add new languages. Whether you create the translations in-house or sell specific language rights to a regional publisher, here are some tips to improve your experience:

Common Files: One easy way to prepare files for another language is to build files that are language independent. These files will be completely unchanged from the original language version. Language independent files have no text (or perhaps just numerals) and often include iconography. Some examples of common files could be card backs and scoretrack boards. The more common files you have, the lower the chance of missing something that needs to be translated.

Layer Management: It may sound simple, but properly naming layers inside an Illustrator or InDesign file can help your publishing partners know what content to modify and what to leave alone. You can also lock layers to let partners know what shouldn't be touched.

5th Plate Replacement: Moving your text to a separate layer can make it easier to translate your game. This allows you to create a 5th printing plate for each language's text which is printed with a 5th well of black ink. By swapping out only a new 5th plate for each language, you can keep using the original CMYK printing plates and save money. Keep in mind that only pure black text (C:0%, M:0%, Y:0%, K:100%) can be changed using this method.

If you are creating files for text replacement, please note that some translations may take up to 30% more space than English. So, leave plenty of space for your partners and their translations.

English:
The average giant panda eats 9-14 kg of bamboo shoots every day to compensate for the limited energy that they can extract from this primary source of nutrition.

French:
Afin de compenser la faible quantité limitée d'énergie qu'il peut soutirer de cette principale source nutritive, le panda géant moyen mange quotidiennement entre 9 et 14kg de pousses de bambou.

German:
Im Durchschnitt frisst ein Riesenpanda 9-14 kg Bambusssprossen; es handelt sich um eine so große Menge, da die Pandas die limitierte Energie, welche sie aus der Hauptnahrungsquelle gewinnen, ausgleichen müssen.

Cyan plate:

+
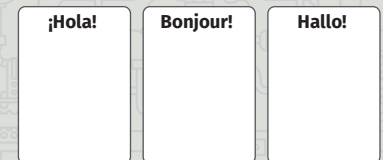
Magenta plate:

+

Yellow plate:

+

blacK plate:

+

5th plate (black text only):

¡Hola!   Bonjour!   Hallo!

=

Final result:

¡Hola!   Bonjour!   Hallo!

SPECIAL EFFECTS

Adding special effects to your printing can really make your game stand out on the shelf or the tabletop. Getting your files ready for these effects isn't difficult and most are prepared using similar methods. Depending on the effect, you will create a separate file – or a separate layer inside the main art file – showing the exact area where the special effect should be applied.

Special effects include:

Metallic ink: A special ink that comes in a variety of metallic hues.

Spot UV: A "shiny" coating that reflects light and can add depth to your designs.

Foil stamping: A method that applies actual metallic foil to a print component.

Debossing/embossing: Raised or lowered areas pressed into a print component's surface.

Scratch-off: A special coating that can be removed to reveal secret information underneath. Especially useful for legacy games!

Shown above: the box front for Panda's paper toolkit. On the left is the CMYK artwork and on the right is the separate special effect file. This same file could be used for any of the above special effects (we used it for spot UV and embossing). We recommend setting special effect art in a single ink color (we used 100% Magenta above).

ALL ABOUT DIELINES

Below you'll see an example of a game board template. In the top right is the legend that specifies the color of the various lines:

- **Cut:** Indicates where the component will be machine-cut to create an edge.
- **Margin:** Sometimes called the "safe area", this indicates the area your important content should stay within in order to ensure it will not be too close to the edge.
- **Bleed:** Shows the required amount of artwork needed to extend past the cut line.
- **Fold:** Indicates where game boards, paper sheets, or player screens will be folded.
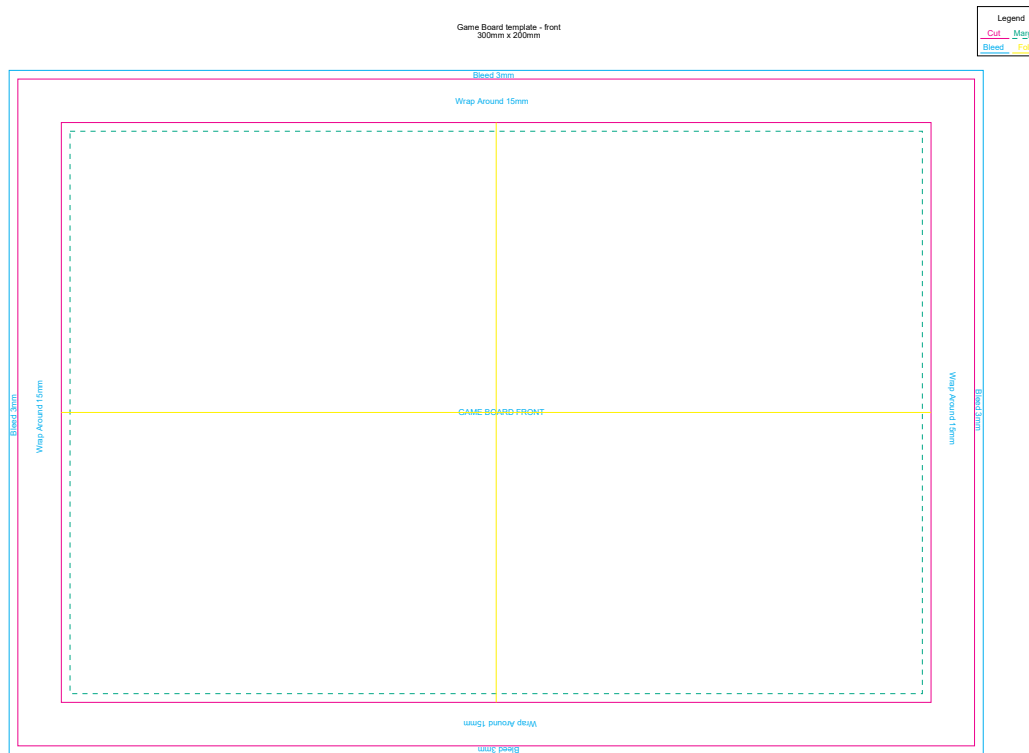
To ensure that you have proper dielines, bleeds, and margins, make sure to use Panda's Template Generator: pandagm.com/tools

✓ **THE BASIC FIVE:**

☐ Format: PDF
☐ Color mode: CMYK
☐ Resolution: 300+ppi
☐ Bleed & margins: **3mm***
☐ Text: pure black

✓ **SPECIFIC TO BOXES:**

☐ Will components fit?
☐ ***18mm** bleed for box top and bottom
☐ Upload separate dieline file or layer
☐ Box markings: pg. 12
☐ Safety markings: pg. 13

Top and bottom box templates generated with the Panda Template Generator.

TWO-PIECE GAME BOXES

You only get one chance to make a first impression. With a tabletop game, the first impression starts with your box. Start building your box the best way possible with the Panda Template Generator found at: pandagm.com/tools/

Make sure your components fit: Your box should be at least 15mm larger in each dimension than your largest component to make sure the components can be easily removed. The box also needs to be large enough to contain all of your components together. Your Panda contact can help you determine the best box size for your game.

Example: If your game box is 150mm x 200mm, the maximum size of any components inside the box would be 135mm x 185mm. This size applies to folded game boards, rulebooks, punchboards, cardboard mats, sheets of paper, etc.

18mm of bleed: All box files (top and bottom) must have 18mm of bleed on each side. This includes 3mm of standard bleed plus 15mm of extra wrap that goes around to the inside of the box to create a smooth, clean edge.

Dieline file/layer: Be sure to save and upload your dielines as a separate PDF or as a separate layer in your art file. Dielines should not be part of the regular art file layers. Instead, they are separated in order to create a die-cut mold for the box.

To ensure that you have proper dielines, bleeds, and margins on your box, use Panda's Template Generator: pandagm.com/tools

Box and safety markings: Please see pages 14-15.

TUCK BOXES & FOIL PACKS

TUCK BOXES: If your game consists of only cards, or if you need a smaller box within the main gamebox to hold pieces or components, the best storage may be a lighter, one-piece tuck box. Just like the two-piece box, you can generate custom tuck box templates with the Panda Template Generator found at: pandagm.com/tools/

Bleed and margin: All tuck box files must have the standard 3mm of bleed and margin.

Box and safety markings: Please see pages 14-15.

Example of a tuck box template
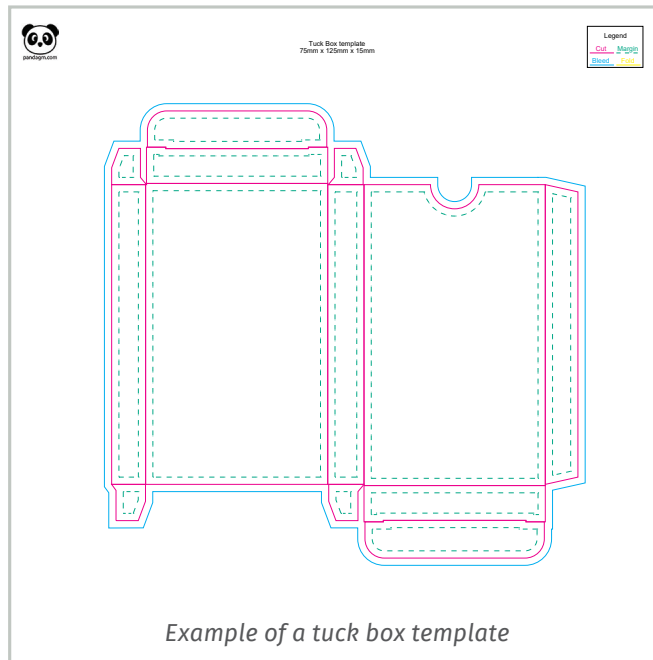
FOIL PACKS: For something smaller like a booster pack of cards, foil may be your best option. A foil pack can be standalone packaging for retail purchase, or it can hold cards to be revealed during a legacy game. If you need a dieline for a foil pack, please contact your Panda project manager.

BOX MARKINGS

Be sure to consider markings and labels when you are designing your game box. Some are legally *required* to be on the box, while others are optional - we still *recommend* these for the benefit of potential buyers and retailers:

A. Made in China: *Required* The country of origin is required for customs. Panda's factories are located in China.

B. Publisher name & address: *Required* A point of contact is required for clients to reach you. This varies depending on market (see sidebar).

C. Number of players: *Recommended*

D. Play time: *Recommended*

E. Recommended age range: *Required* You must add a recommended age range on your box. This will determine if your game is considered a toy or not. (See the next page for more details.)

F. UPC/EAN13: *Recommended* While not required, using a UPC/EAN13 is strongly recommended. Having a UPC will make handling your game a lot easier for all parties involved. You can purchase individual UPC codes online from a number of sites by searching for UPC barcode sellers.

G. Lot number: *Required* The lot number is required to identify a production run in the unlikely event that a product is recalled. Panda automatically puts a small lot number and Panda icon next to the UPC. Leave at least 5mm of space to the right of your UPC for this mark. If you have your own lot number, please inform your project manager.

0 12345 67890 5

1234-5678
pandagm

Acme Game Corp.
123 Main Street
Gameville, US 01234

2-4   30-60   14+

MADE IN CHINA

0 12345 67890 5

1234-5678
pandagm

SAFETY MARKINGS

There are many regulations governing the sale, distribution, and markings required on consumer products. Board games are no different. Depending on where you plan to release your game, it may need to comply with regulations such as the EN-71 (European Union), UKCA (United Kingdom), and ASTM F693 (United States). Regulations often change over time so do your research and be sure to discuss with your product manager.

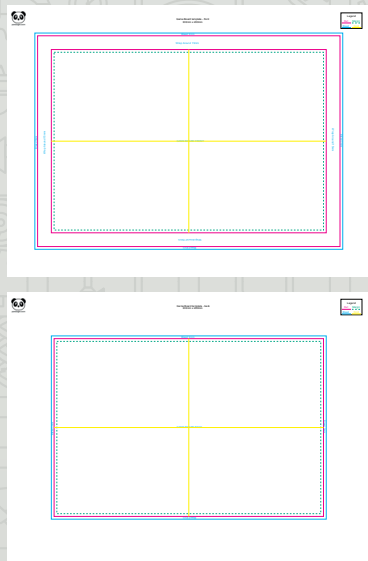| Market:	EUROPEAN UNION	UNITED KINGDOM	USA
Regulation:	The **EN-71** is the European standard for safety requirements for toys.	The **UKCA** was established after the UK left the EU. Many UKCA regulations are the exact same as the EN-71.	In the United States, the **ASTM F963** regulations are the Standard Consumer Safety Specification for Toy Safety.
Is your game considered a toy?	*See the definitions below, and then follow the required labeling for toys if your game is considered a toy.* *If your game is not considered a toy, no additional safety markings are required.*		
Definition of a toy:	Any product designed or intended, whether or not exclusively, for use in play, by children under 14 years of age.		Any object designed, manufactured, or marketed as a plaything for children under 14 years of age.
Required marking:	$C\epsilon$ *Minimum height: 5mm* — *Must appear in black or white. May not be altered in any way.*	**UK CA** *Minimum height: 5mm* — *Must appear in black or white. May not be altered in any way.*	⚠ **WARNING:** **CHOKING HAZARD - Small parts.** **Not for children under 3 years.** *Must include exclamation point inside triangle. Triangle must be taller than the word "Warning". Minimum height varies depending on the size of your box - ask your prepress specialist for specifics.*
Required labeling for toys:	**Warning - Age Range:** Indicate this in one of three ways: · *Warning:* (use the age label graphic shown here) · *Warning. Not suitable for children under 36 months.* · *Warning. Not suitable for children under three years.* **Hazard:** A text must indicate what kind of hazard is present in the game. The hazard most board games present is a choking hazard with small pieces. The recommended text is: *Choking Hazard - Small Parts.* Note: The above warning and hazard indication are not required on toys that, based on their function, dimensions, characteristics, or otherwise, are manifestly unsuitable for children under 36 months.	🚫 0-3 *Min. height is 10mm* — *Must appear in black, white, and red as shown. May not be altered in any way.*	**Warning Text:** The Warning marking above should be accompanied by the following text: *CHOKING HAZARD - Small parts. Not for children under 3 years.*
	Download the required safety markings and labels from our Tools page at pandagm.com/tools		
Testing:	While rare, for games marked 13 years and under, customs or your distributor may ask you to provide test results certifying your toy has passed the EN-71/UKCA/ASTM F963 tests. Panda can provide safety testing through a third party, however it is still your responsibility, as the publisher, to make sure your game is tested according to the standards of any territories where your game will be sold. Please contact your project manager for more details.		

GAME BOARDS

Front and back of a game board template generated with the Panda Template Generator.

Your game board is the centerpiece of the tabletop gaming experience. Laying out a flat board may seem simple, but it can be troublesome if the margins and bleeds are not set properly. You can generate a custom template for your game board at pandagm.com/tools/

Bleed: Just like your game box, the board requires 18mm of total bleed to wrap around the edges. This covers and protects the edge of the game board, lengthening its life.

Double-sided: Printing a custom back for your game board adds minimal cost and can enhance your game. lf you are designing a double-sided game board, the back side needs to be 3mm smaller on all sides than the front. This is because we mount the back sheet on top of the wrapped edges from the front side of the game board. Don't forget the standard 3mm bleed!

Example: If your game board is 200mm x 400mm, the trimmed size for the back will measure 194mm x 394mm. The file dimensions would be 200mm x 400mm when you include bleed.

Maximum size: Should you have high ambitions for a giant game board, please note that the current maximum size for Panda manufactured game boards is 700mm x 1000mm. For playing surfaces larger than 700mm x 1000mm, consider using two game boards placed side by side.

To ensure that you have proper dielines, bleeds, and margins on your game boards, use Panda's Template Generator: pandagm.com/tools

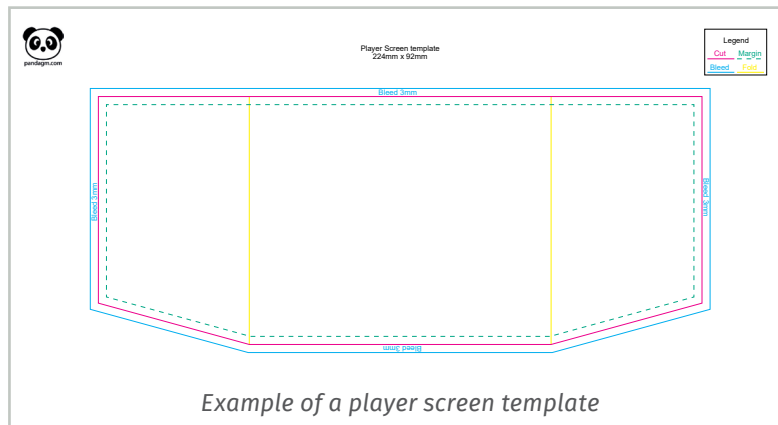# CARDBOARD MATS & PLAYER SCREENS

CARDBOARD MATS: Sometimes a game requires smaller boards in addition to the main game board. These may be individual player boards, token storage areas, or scoring boards, among other things. We call these non-folded boards cardboard mats, and they do not have wrapped edges. Standard cardboard mats are designed with square corners. Rounded corners or special shapes require a die-cut mold which will incur additional costs.

Bleed and margin: All cardboard mat files must have 3mm of bleed and 3mm of margin.

PLAYER SCREENS: Sometimes you have to hide your goods from the enemy! This is where a folding player screen, also known as a cardboard screen, may come in handy. Angled edges beyond the fold can help your screen stand up better.

Bleed and margin: All player screen files must have 3mm of bleed and 3mm of margin.

Dieline file: Player screens require an additional dieline file showing trim and fold lines. Dielines should be included as a separate PDF, or a separate layer in your PDF file. Do not include dielines in your regular art file layers. If you need a template, please contact us.

Example of a player screen template

✓ **THE BASIC FIVE:**

☐ Format: PDF
☐ Color mode: CMYK
☐ Resolution: 300+ppi
☐ Bleed & margins: 3mm
☐ Text: pure black

✓ **SPECIFIC TO CARDBOARD MATS:**

▪ No specifics

✓ **SPECIFIC TO PLAYER SCREENS:**

☐ Dieline as separate file or on a separate layer

BOOKLETS & PAPER SHEETS

Your players can't play your game without knowing the rules! Rulebooks, or booklets, are usually saddle-stitched (bound with staples) and can be made with a variety of paper stocks. Paper sheets – good for short rules or rules references – are single sheets and can be folded to your specifications. Paper pads are also available in a variety of sizes and can be glued on whichever edge you prefer.

Bleed and margin: All rulebook and paper sheet files must have 3mm of bleed. For rulebooks, margin sizes vary depending on the number of pages:

- **1-28 pages:** Use the standard 3mm margin.
- **32-64 pages:** Increase the margin to 5mm.
- **68+ pages:** Inquire about templates and alternative binding methods.

Number of pages: The total page count for saddle-stitched rulebooks must be a multiple of four. (Rule sheets can be single or double sided.)

File setup: Submit rulebooks as multi-page PDFs with a single page of the booklet on each page of the PDF. Do not use two page spreads. Our production team will format the booklet for print with the proper pagination.
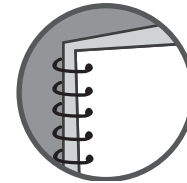
Binding types: The vast majority of board game rulebooks use saddle-stitch binding, but perfect, spiral and casewrap bindings are also popular. Contact a Panda for templates and to learn more.
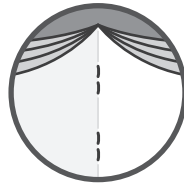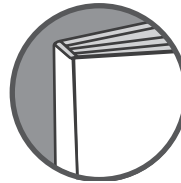
Saddle-stitched   *Perfect bound*   *Spiral bound*   *Casewrap (hard cover)*

Using a larger than required margin on the gutter (the area of the page near the binding) of your rulebook will ensure that your content near the fold is easy to see and read!

CARDS

High-quality, well-designed cards can add significantly to your enjoyment of a game, whether it's a simple card game or a complex board game with cards integrated into the play. Panda offers a variety of card stocks, finishes and sizes to suit your game's unique needs.

Bleed and margin: All cards must have 3mm of bleed and 3mm of margin. Please extend the background artwork to the bleed line or beyond, and keep important artwork and all text inside the margin line.

File format: When submitting cards, you should create a single, multi-page PDF where each page contains a single card front. *Do not* create individual PDF files for each card. If your deck has a single card back, add that card back as the last page of the file. If you have several different card backs, upload one file for all the card fronts and a second file for all the card backs.

> *Example 1: Deck A has 54 cards with a single back. The PDF for Deck A will be 55 pages long, with the 55th page being the card back.*
>
> *Example 2: Deck B has 54 cards with multiple backs. There will be two PDFs for Deck B: one with the 54 card fronts, and a second file with the 54 card backs in the same order. It helps to be descriptive when you name your file.*

Border black: For a deep, consistent black that makes it easier to color match between print runs and expansions, consider using this color formula: (C:40% M:0% Y:0% K:100%).

COMMON CARD SIZES: In addition to the ones below, Panda has many more standard card sizes. For a complete list or to create the template for a custom card size, go to pandagm.com/tools and select the template generator.

| *Mini* 44 x 67mm 84 / sheet | *Bridge* 57 x87mm 60 / sheet | *Blackjack* 63 x 88mm 54 / sheet | *Euro* 59 x 91mm 45 / sheet | *Square* 70 x 70mm 56 / sheet | *Mini Square* 51 x 51mm 110 / sheet |

Standard card corners have a 2.5mm corner radius.

PUNCHBOARD

The humble punchboard is an incredibly versatile component. It can be used to create a multitude of tokens, tiles, trackers, dials and more. It can also be single-layer, dual-layer, or even create complex constructible components from multiple pieces that fit together.

All these options can make punchboards one of the most difficult print components to design. Not only do you need to follow the normal rules for designing print pieces, you also have to take great care in planning your token layout, while paying attention to special dieline, bleed, and margin requirements.

Punchboard size: To comfortably fit in your game box, the punchboard size should be at least 15mm smaller in length and width than the box top.

Example: A 200mm x 250mm box can hold a punchboard of 185mm x 235mm.

Individual token sizing: The smallest token size Panda can produce is approximately 8mm x 8mm, and the smallest edge in any unique shape must be at least 3mm long.

Note: The physics of the punching process means that the front side of your tokens will have a slightly rounded edge.

Label and number your punchboards! This is particularly important if you have multiple punchboards using the same dieline and similar art. Labels and numbers help keep them from getting mixed up during the production process. You can even label them outside the whole board dieline since that portion will be discarded during final assembly and packaging.
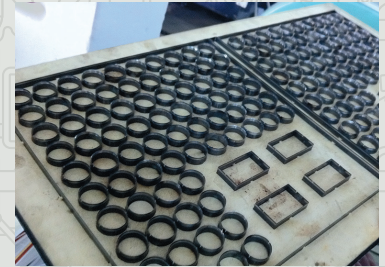
PUNCHBOARD (CONT.)

Arranging tokens on a punchboard can be tricky. You need to take special care to put enough space between the tokens while following normal bleed and margin rules.

Token spacing: You should always have at least 6mm between any dielines, whether it is from one token to another or from a token to the dieline for the entire board. Additionally, each individual punch-out piece on the punchboards must have 3mm of bleed outside its dieline and 3mm of margin between the dieline and any non-background art (especially text and border lines).
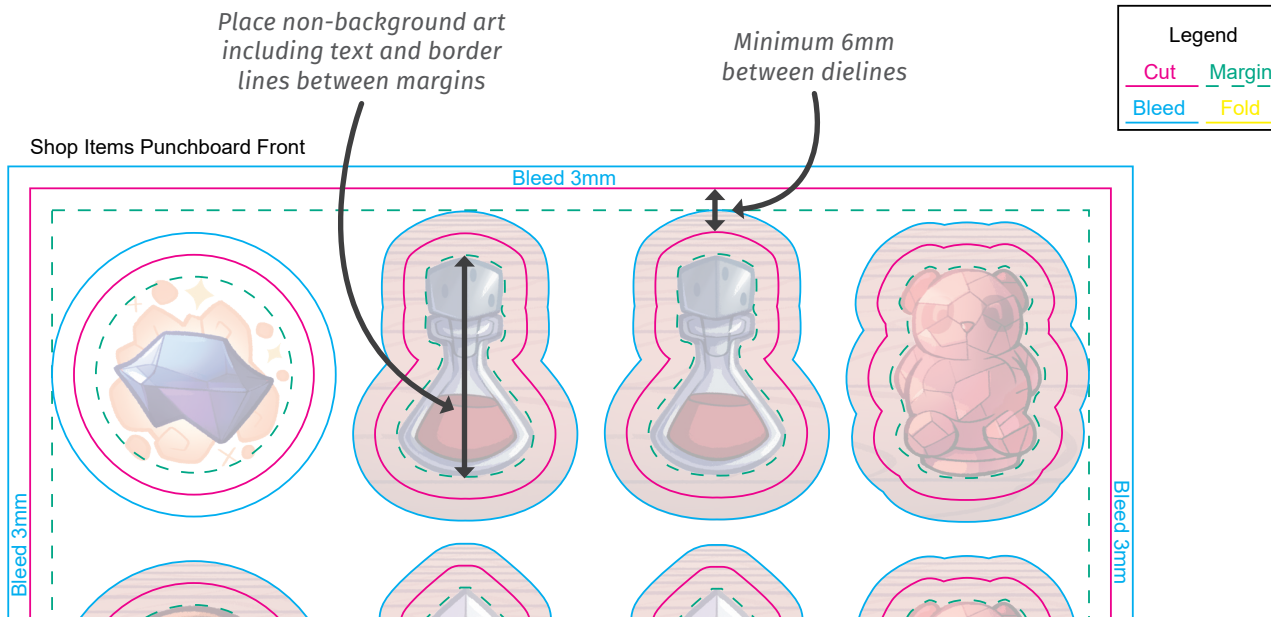
Whole board dieline: The entire punchboard must also include a "whole board" dieline. This dieline also requires 3mm bleed and 3mm margin. The whole board dieline must match the size of the punchboard specified on your contract.

Dieline file: Please create and save your dielines as either a separate PDF, or as a separate layer in your punchboard art file. Dielines cannot be part of your regular art file layers. We need separate dieline files in order to create a custom, die-cut mold for your punchboard(s).

The blades of a diecut mold made from a dieline file:

The "whole board dieline" can be seen around the entire edge.

Place non-background art including text and border lines between margins

Minimum 6mm between dielines

Legend	
Cut	Margin
Bleed	Fold

Shop Items Punchboard Front

Bleed 3mm

Bleed 3mm

Bleed 3mm

PUNCHBOARD (CONT.)

Example: You need punchboard tokens for two crystals, two shields, four red potions, four yellow potions, and four panda statues. It is more efficient (and less expensive!) to create a single dieline template to be used twice instead of two separate templates.

Multiple punchboards: When designing punchboards, try to think as efficiently as possible. Since each unique die-cut requires a new mold (and tooling costs!) try to lay out your punchboard so you can use one dieline template for multiple punchboards. (See the example in the left sidebar.)

Back side layout: It is critically important that the back sheet of your punchboard artwork is a mirror image of the front of your punchboard.
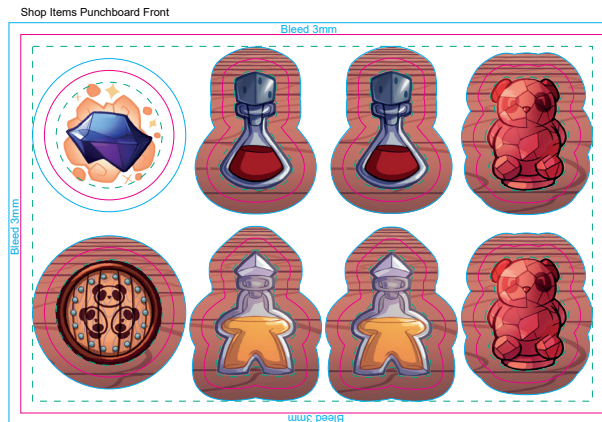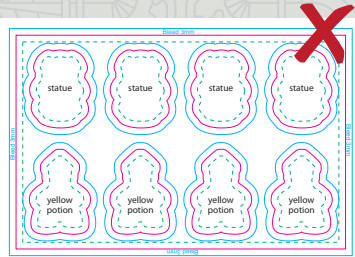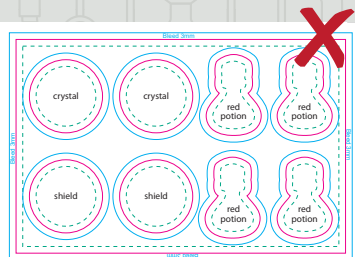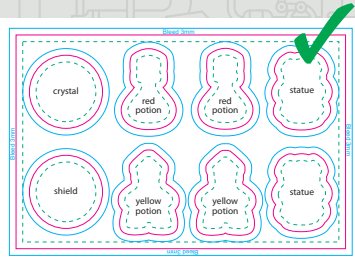

*Punchboard front*

Punchboard back

PUNCHBOARD (CONT.)

Shared dielines: If you're running out of space on your punchboard, some tokens may be able to share a dieline. Straight edge triangles, rectangles, and hexagons work best for this. However, there are some restrictions for this method.

Every token must have at least one edge touching the part of the punchboard that is discarded after the tokens are punched out. Also, since there is no bleed between tokens sharing a dieline, the content in their margins must be identical.
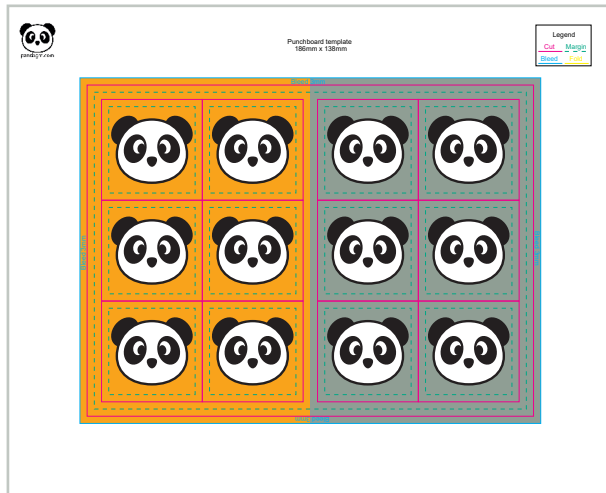

✔ *In the above example, the 12 tokens are in two groups of six. Each token has at least one edge that touches the discarded punch board.*
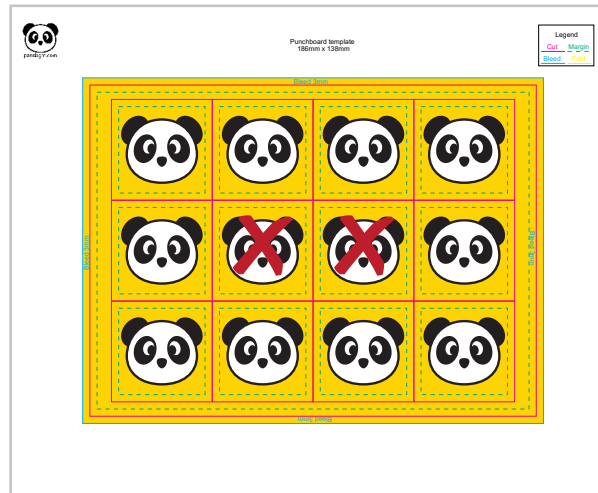
✘ *In this example, the two center tokens do not share an edge with the discarded punchboard. This dieline pattern is not allowed.*

Double-layered punchboards: A double-layer punchboard (often called a dual-layer board) can be a premium addition to your game. This type of punchboard is actually two layers of punchboard glued together. The top layer has areas punched out that can hold cubes, discs, meeples, or other components in a specific spot on that board. Please take extra care to ensure that images on the bottom layer line up correctly with the punched-out portions of the top layer. Punchouts should be at least 1.5mm larger than the component that fits inside.
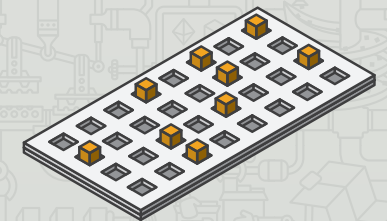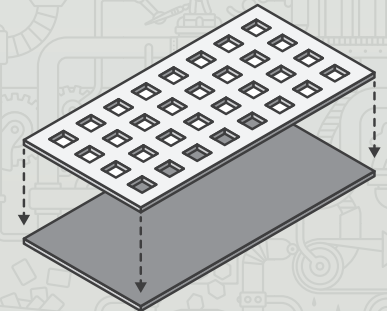
A double-layered punchboard is a great solution to hold cubes and other small pieces in place.

STICKERS

STICKER SHEETS: Panda can make sticker sheets for your game. Sticker sheets are "kiss cut", meaning we will cut through the sticker part of the sheet containing your artwork, but not through the backing paper. The stickers can then be peeled away and applied.

> **Layout:** Sticker sheets are designed and laid out similar to punchboards, except the bleed and margin for sticker sheets is 1.5mm instead of 3mm. If a template is required, Panda can provide one for simple shapes such as squares and circles. Sticker sheets can also have shared dielines between individual stickers.

Example of a sticker sheet file
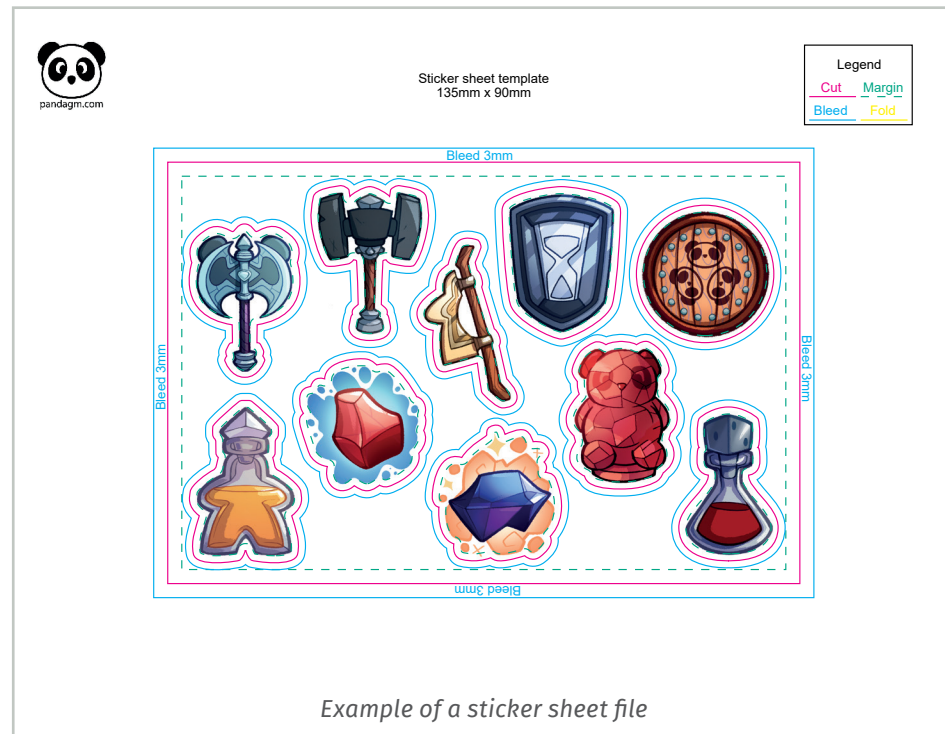
BOX STICKERS: Panda can also apply a sticker to the exterior of your game. This can come in handy for different editions like a special crowdfunded version.

GLOSSARY OF COMMON TERMS

Black, Border
Border black is the name of the CMYK color Panda suggests for black borders on cards. This border black color is very consistent and more easily matched between print runs. The color formula for border black is: C: 40%, M: 0%, Y: 0%, K: 100%.

Black, Pure
Pure black is the name of the CMYK color Panda prefers for black text, icons, and the UPC symbol. The color formula for pure black is: C: 0%, M: 0%, Y: 0%, K: 100%.

Black, Rich
Rich black should be avoided for text, small icons, and the UPC label. Rich black's color formula is generally any combination of CMYK that looks like black.

Bleed
Bleed is the design area outside of the trim/cut area. It contains art that is printed beyond the trim line and is intended to be cut off. This prevents unprinted white edges from mistakenly showing up on printed components.

Color, CMYK
The CMYK color model (sometimes called process color or four-color) is a subtractive color model used in color printing. It is also used to describe the printing process itself. CMYK refers to the four inks used in color printing: Cyan, Magenta, Yellow, and blacK.

Color, RGB
The RGB color model is an additive color model in which red, green, and blue are added together in various amounts to reproduce a broad array of colors. The name of the model comes from the initials of the three additive, primary colors. Not all colors you can create in RGB color can be reproduced in CMYK color. Do not use RGB in files submitted to Panda.

PPI
PPI stands for Pixels Per Inch, and relates to the resolution of an image. It measures the amount of visual data contained within a graphic. Higher resolution images have higher PPI. All file images submitted to Panda must be at least 300 ppi, the industry printing standard.

Dielines
A dieline is a vector graphic which tells a machinist how to create a punch-out. Graphic designers can also use dielines to assist in properly laying out a document that will be die-cut.

Margin (also called Inner Bleed or Safe Zone)
Margin is the area between the trim/cut area and the content/art area of a design. Margin prevents the art from being mistakenly trimmed off a document. It also helps keep the eye from tracking drift. In some instances, the margin is the border.

Overprint
Overprinting refers to the process of printing one color on top of another. Overprinting allows the printer to create crisp text and avoid visual drift.

Raster Graphics
Images or text made of individual pixels (unlike vector format, see below). You can shrink raster graphics, but enlarging creates blurry, pixelated images. Adobe's Photoshop software generates raster graphics.

Trim Size
Trim size is the final size of your component after the bleed has been trimmed off.

Vector Graphics
Vector graphics use mathematical formulas to describe computer graphics shapes. These graphics are modified using special curves known as Bézier curves. Vector graphics can be infinitely scaled without blurring or pixelating. Adobe's Illustrator software generates vector graphics.

Prepare your files for the Panda printing process!

GRAPHIC DESIGN GUIDEBOOK V.4-09.22

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