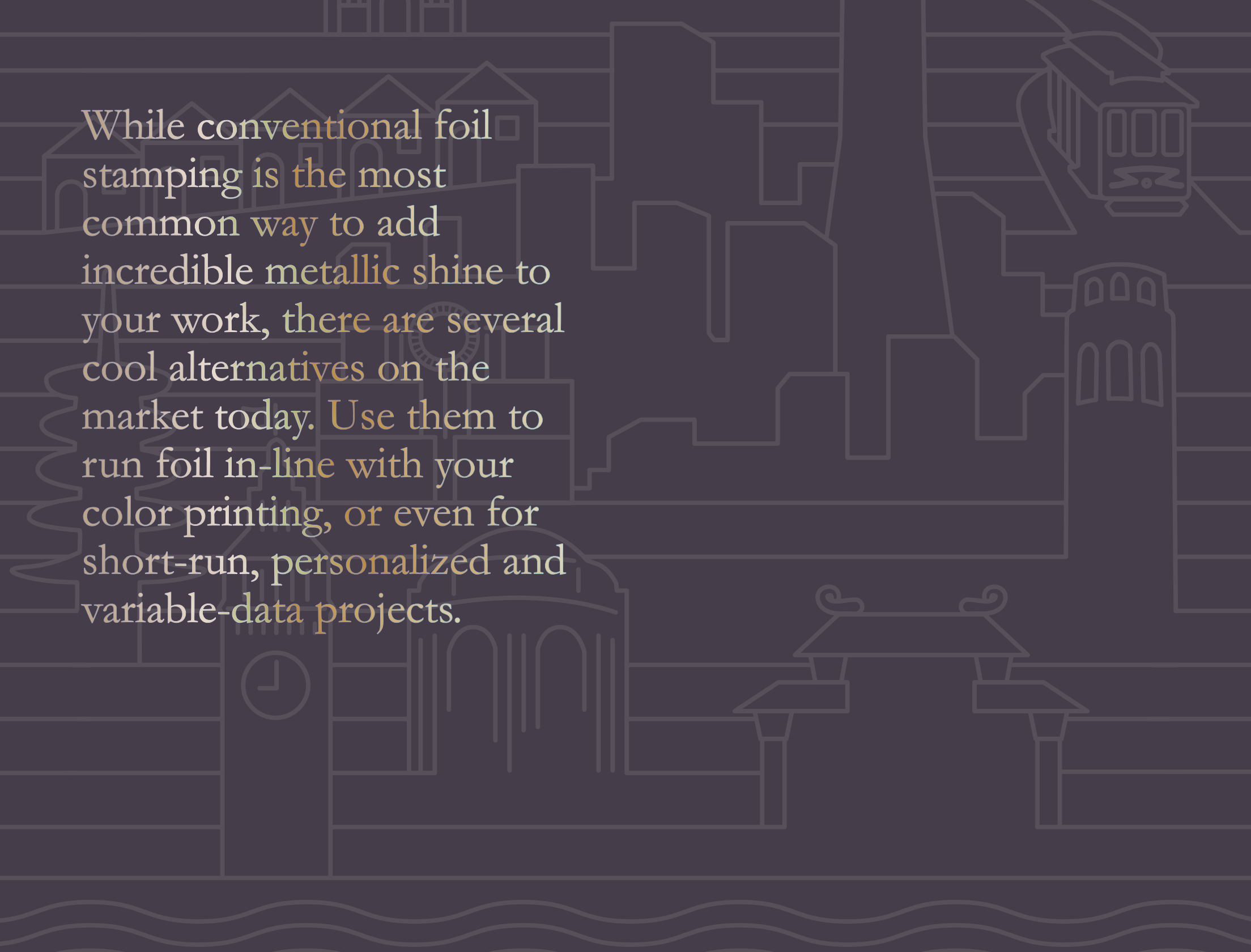


F O I L  
C H I E A T  
S H E E T

The background features a stylized, line-art illustration of a city skyline. It includes various buildings of different heights and shapes, a train on tracks in the upper right, and two street lamps in the lower right. The entire scene is rendered in a light gray color against a dark gray background.

While conventional foil stamping is the most common way to add incredible metallic shine to your work, there are several cool alternatives on the market today. Use them to run foil in-line with your color printing, or even for short-run, personalized and variable-data projects.

# Hot Foil Stamping

While the paper runs through the foil stamping press (clamshell or letterpress for small to medium-size runs or a platen press for larger runs), a heated metal die presses your design on top of the foil, which frees it from its backing. The pressing of the die into the paper's surface leaves a slight impression in the paper, an extra tactile element.

**PROVIDER** Many Print Service Providers (PSP), including letterpress studios

**COLORS** Hundreds, from solids to translucents, and from metallic to holographic and pearlescent – the sky's the limit.

**RUN LENGTH** Medium to large

**PAPER OPTIONS** Coated or uncoated works equally well with foil stamping, while soft, uncoated sheets allow for a deeper impression. If you choose an opaque foil you can achieve beautiful, clean results, especially on colored, uncoated stock, without the color of the paper showing through.

**ADVANTAGES** Most versatile foil process, as it can foil and emboss in the same press run. It also has the ability to press refractive (micro-etched) patterns into the surface of the foil.

**DISADVANTAGES** Special dies or plates are needed, which adds to the turnaround time and is more costly for smaller jobs.





COLD FOIL TRANSFER

## Cold Foil Transfer

Cold Foil Transfer is applied in-line on a flexo (web-fed) or offset (sheet-fed) printing press.

On an offset press with 6 or more units, the first unit is used to apply an adhesive version of your to-be-foiled artwork; the second unit applies the foil. The foil only sticks to the adhesive areas.

The CMYK stations of the press allow you to print on top of the foil in-line, thus creating any color in the rainbow. Software from companies like Color Logic provides the ability to proof metallic overprinted colors before the final production is run.

**PROVIDER** Many Print Service Providers (PSP) specializing in labels and packaging

**COLORS** Metallic Gold, Silver and Holographic, which allow for unlimited metallic hues when overprinted with CMYK.

**RUN LENGTH** Medium to large

**PAPER OPTIONS** Most systems will run with coated papers (uncoated ones tend to absorb the adhesive). Coated papers will provide the best foil shine. However, new technologies are now available that provide the option to print cold foil on uncoated papers, which will allow us more flexibility in the future.

**ADVANTAGES** Ability to run in-line on the printing press and create unlimited metallic colors by overprinting CMYK. Excellent choice for projects that include significant foil coverage.

**DISADVANTAGES** Mostly specified for applications on coated stocks (though uncoated stocks are possible). More feasible for larger-size runs (due to set-up time).

# Digital Foiling

Digital foiling encompasses offline processes that can enhance your offset and/or digitally printed piece with that extra-super shine.

As these processes are digital, this means:

- **No die, plate or film is required**
- **There is no pressure used, thus no deep impression on the paper**
- **They are ideal for short to medium print runs**
- **They offer the opportunity to use variable-data foiling.**

Digital foiling is done in one of two ways: using either toner or polymer (varnish) as the base adhesive to ensure the foil adheres to the paper.





## Toner Based Digital Foiling

This is a simple 2- to 3-step process. The artwork you want to be foiled is first printed in a rich black on a toner or HP ElectroInk digital press (depending on the foiling system your printer uses).

The sheet is then run through the sleeker and, with the help of a touch of heat, the foil is adhered to the black image.

The sheet can now be run through the digital color press again to add CMYK alongside your foil or – in most cases – even on top of it, allowing you to keep your foil look classic (Gold or Silver), or to go for unlimited metallic effects.

**PROVIDER** Many PSPs. This is still considered a new technology and the number of providers is growing. [See chart]

**COLORS** All toner based digital foiling systems offer basic Metallic Gold and Silver. Some can utilize hundreds of readily available foils, and most of them allow you to overprint the foil, thus providing unlimited color options.

**RUN LENGTH** Short to medium

**PAPER OPTIONS** These systems work best with coated papers. Uncoated ones work well, but the foil does not appear quite as shiny.

**ADVANTAGES** No dies, plates or film required so feasible option for shorter runs or prototypes; ability to use foil for personalization. Being able to overprint the basic foil allows for thousands of metallic hues and can enhance images as well.

**DISADVANTAGES** Multiple passes needed to apply toner, foil, and CMYK overprinting. Limited to short to medium runs.

# Polymer Based Digital Foiling

Print your project offset or digital first and then, in a separate pass, run it through a digital enhancement press to add super-shiny foil. The press lays down a clear polymer adhesive of your artwork first, which the foil will then adhere to.

Adding a thicker layer of adhesive allows for the foil to be raised above paper level, providing an embossed look to the foiled image.

For certain applications, the printed and foiled sheet can be run back through the digital enhancement press where a clear spot coating can be applied on top of the foil (and printing for that matter), giving it a raised, textured feel.

**PROVIDER** Several PSPs. This is still considered a new technology and the number of providers is growing. [See chart]

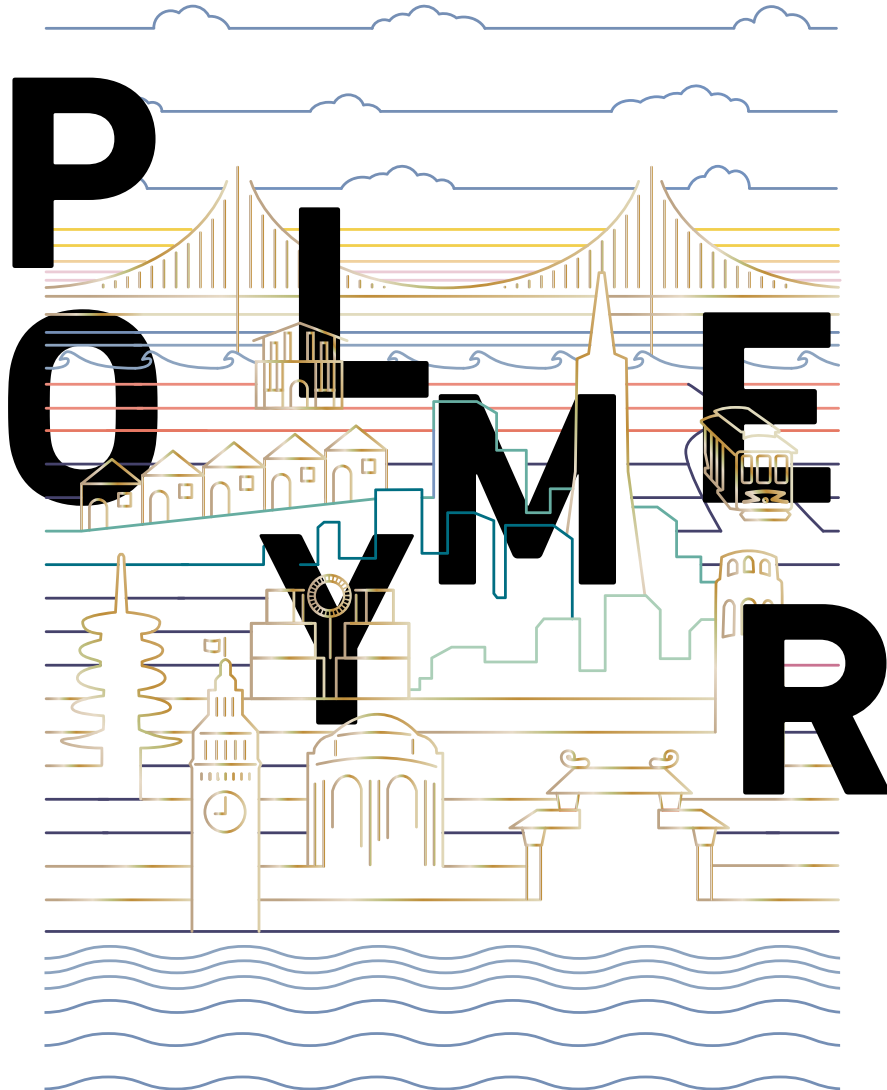
**COLORS** Gold, Silver, Holographic and dozens more

**RUN LENGTH** Short to medium

**PAPER OPTIONS** Mostly coated – uncoated with extra care

**ADVANTAGES** No dies, plates or film required so a good option for shorter runs; and the ability to use foil for personalization. Adding clear polymer on top of the foil gives that extra tactile (embossed like) feel.

**DISADVANTAGES** Not as feasible for larger-size foil areas, and limitations on paper stocks and foil colors. Polymer based foiling is not commonly overprinted – the foil color you choose is the color you get.





FOIL SUBSTRATES

## Foil Substrate

For large foil areas, foiled substrates (aka “metalized laminates”) are a wonderful option.

Using paper or board as the basis, the foil is laminated to the substrate giving you one shiny and one white side for your creative outlet. (Or just one shiny side if you are printing labels or folding cartons.)

Beyond offset printing, many foil substrates are now also available for digital presses.

And while the foil colors available might seem limited (mostly Silver and Gold), remember you are printing on top of the foil so your metallic shine options are unlimited. Yes, you can even recreate Gold on a Silver sheet. And if you want to keep some areas of your artwork true to color, underprint White before adding CMYK.

**PAPER SUPPLIERS** Mohawk, Zanders, Legion Paper, GPA, CTI Paper, Hazen, Wausau Coated (labels)

**COLORS** Classic Gold and Silver, and Holographic, in some cases brushed options are available as well

**RUN LENGTH** Short to Large

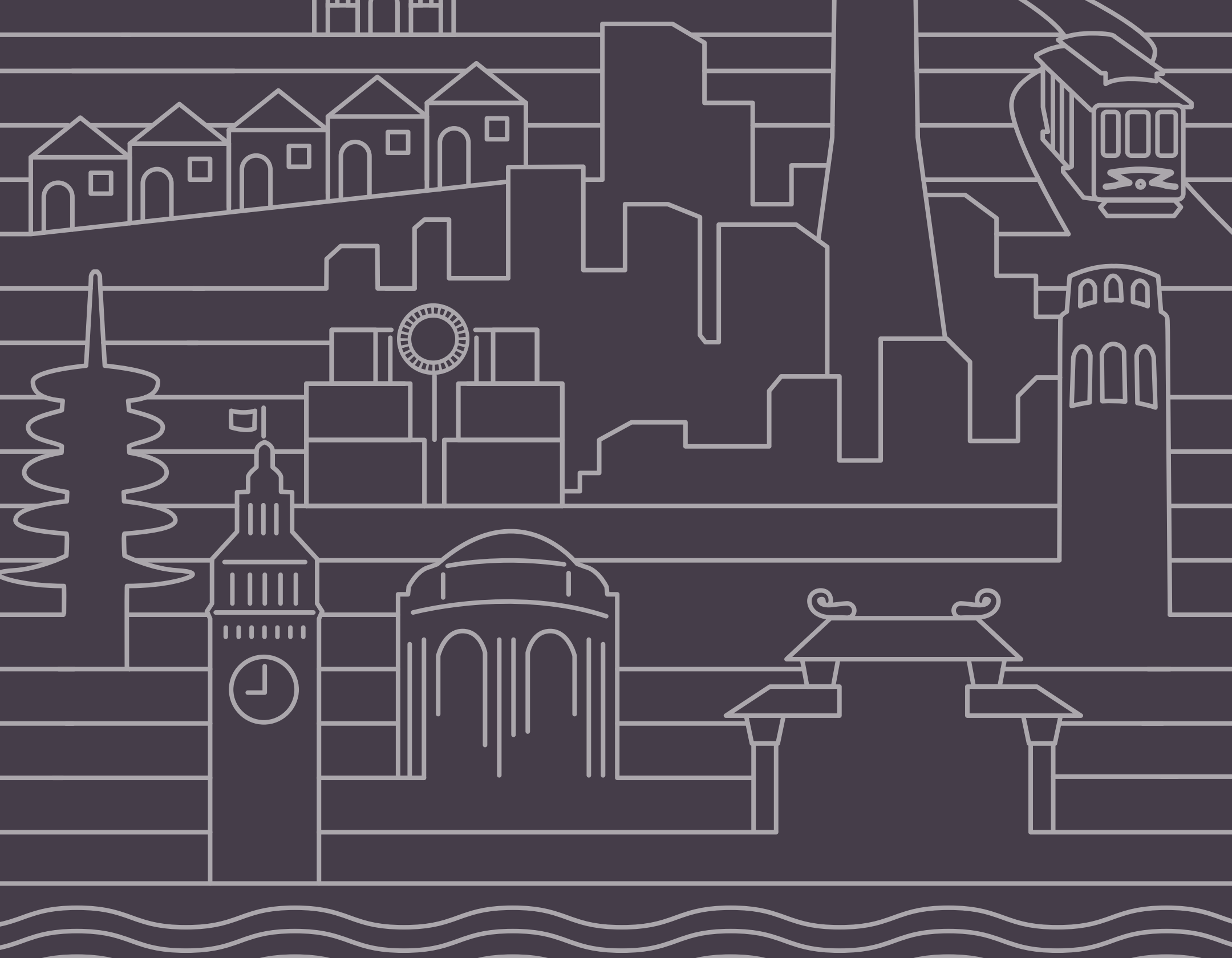
**PAPER OPTIONS** C1S and labels

**ADVANTAGES** Achieve metallic effects without a secondary process – meaning only one pass on press is needed. A great option for large runs with full metallic coverage.

**DISADVANTAGES** High cost for metallic paper/board stock, limited variety. White ink needs to be underprinted where true colors are desired.

Process	Foil Colors	Overprintable	Coated Papers	Uncoated Papers	Print Runs	Providers
<b>HOT FOIL STAMPING</b>						
Many presses: sheet-fed and web	Many colors and types	Technically possible (with extra care)	Yes	Yes	Medium to Large	Many
<b>COLD FOIL TRANSFER</b>						
Many presses: sheet-fed and web	Gold, Silver, Holographic, some colors	Yes (in-line with printing)	Yes	Yes (with extra care)	Medium to Large	Many
<b>TONER BASED DIGITAL FOILING</b>						
Nobelus Sleeking	Gold, Silver, Holographic and dozens more	Yes	Yes	Yes (with extra care)	Short to Medium	Several
Kurz Digital Metal Foil	Many colors and types	Yes	Yes	Yes (with extra care)	Short to Medium	Few
MGI iFoil with Meteor Unlimited Color	Gold, Silver, Holographic and dozens more	Yes (in-line with printing)	Yes	Yes (with extra care)	Short to Medium	Several
Duplo DFL-500	Gold, Silver, Holographic and dozens more	Yes	Yes	Yes (with extra care)	Short to Medium	Few
Therm-O-Type Automatic Foil Tech	Gold, Silver, Holographic and dozens more	No	Yes	Yes (with extra care)	Short to Medium	Several
<b>POLYMER BASED DIGITAL FOILING</b>						
MGI JETvarnish 3D with iFoil	Gold, Silver, Holographic and dozens more	No	Yes	Yes (with extra care)	Short to Medium	Several
Scodix Ultra Pro with Foil	Gold, Silver, and dozens more	No	Yes	Yes (with extra care)	Short to Medium	Several
<b>FOIL SUBSTRATE</b>						
Many presses: sheet-fed and web	Gold, Silver, Holographic	Yes (in-line with printing)	C1S board and labels	N/A	Short to Large	Many

While every effort has been made to ensure the accuracy of the chart above, foiling technology itself is constantly evolving.



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