

*Designers' Fine*  
P R E S S

Thermography  
& Flat Printing

INSIDE:

Introduction to Thermography & Flat Printing

Thermography & Flat Printing Ink Palette  
*shown on Fluorescent White Eggshell and Pearl White Eggshell*

Paper Types, Sizes, and Selection Guide

Designing for Thermography & Flat Printing

*the method: thermography & flat*

Thermography is a print method that is built upon flat offset printing, one of the most common flat printing methods, to create printed pieces with an exquisite raised effect. While offset printing and thermography are more modern in the world of printing, press operators need a balance of artistry and mechanical expertise—nothing computerized here! The operators diligently tend to the presses—applying one ink color at a time, aligning the plate, feeding the paper, gauging the speed and assessing the ink, and making adjustments for consistency throughout each and every print job.

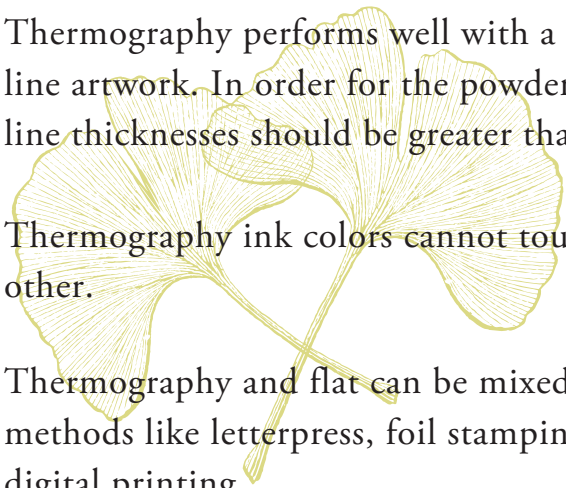
To get the signature raised effect of thermography, a printed piece undergoes three additional steps. First, thermography powder is sprinkled onto the card. Some powder bonds with the wet ink while the excess is removed. Then the card is heated to melt and activate the powder which raises the ink. The result is a beautiful and wonderfully tactile work of art!

*the art*

Thermography performs well with a mix of thick and thin line artwork. In order for the powder to adhere to the ink, line thicknesses should be greater than 0.3pt.

Thermography ink colors cannot touch or overlap each other.

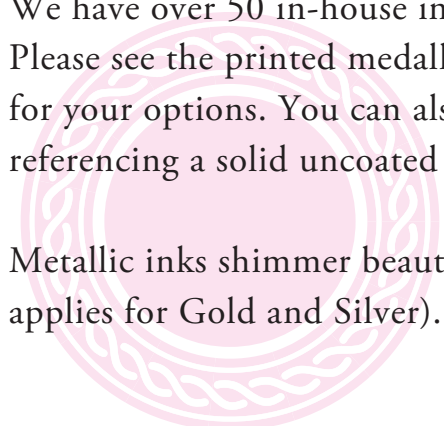
Thermography and flat can be mixed with other print methods like letterpress, foil stamping, and full color digital printing.



*the colors*

We have over 50 in-house ink colors to choose from! Please see the printed medallions on the following pages for your options. You can also order a custom ink color by referencing a solid uncoated Pantone number (fee applies).

Metallic inks shimmer beautifully in thermography (fee applies for Gold and Silver).



*opacity*

Thermography inks are semi-translucent. The final color is affected by the color of the paper the ink is printed upon.

INK	<i>state blue ink</i>
+ PAPER	<i>state blue ink</i>
FINAL COLOR	<i>state blue ink</i>

Keep in mind that light inks will not show up well on dark stocks.

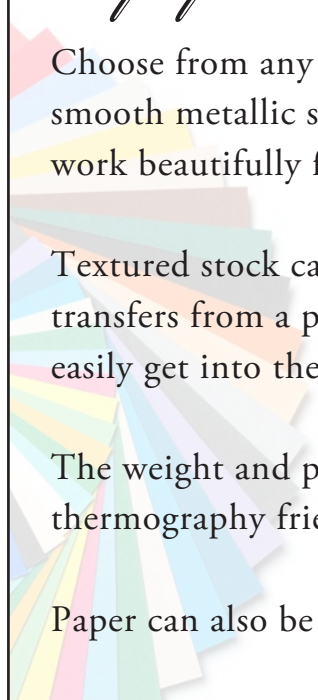
*the papers*

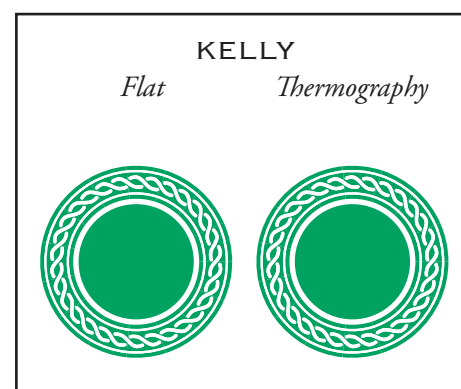
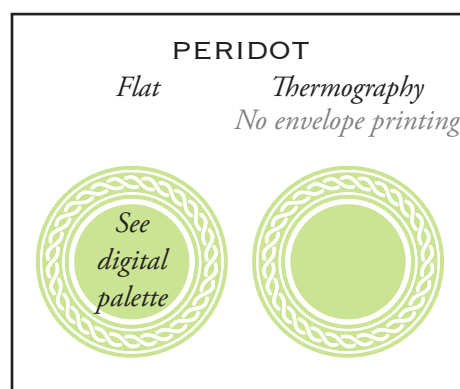
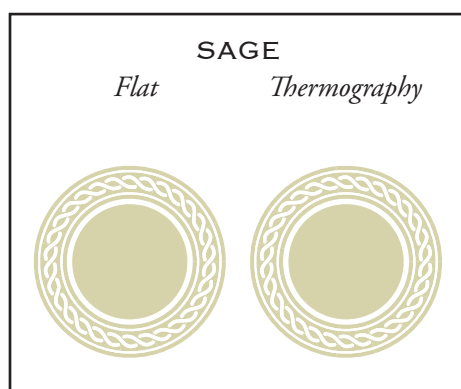
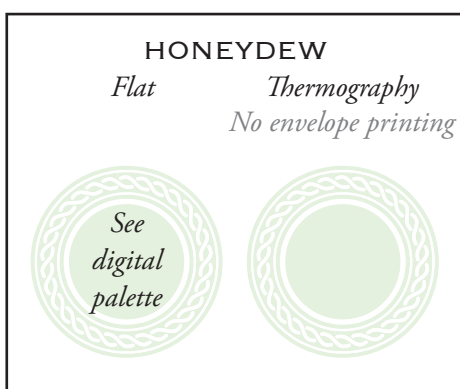
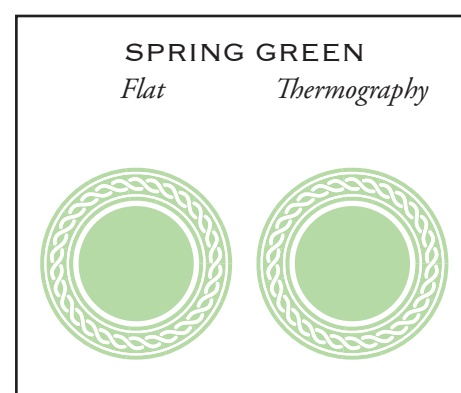
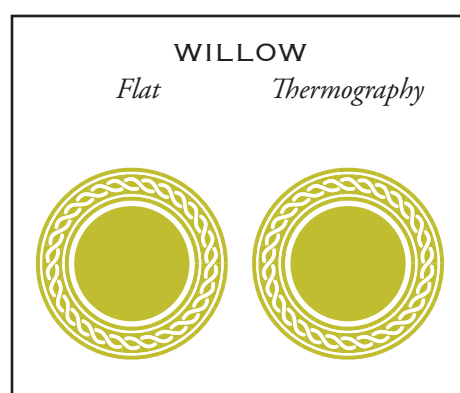
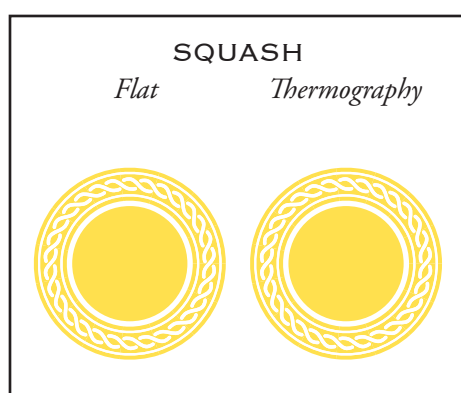
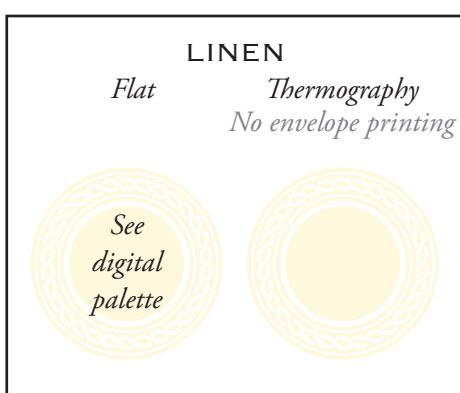
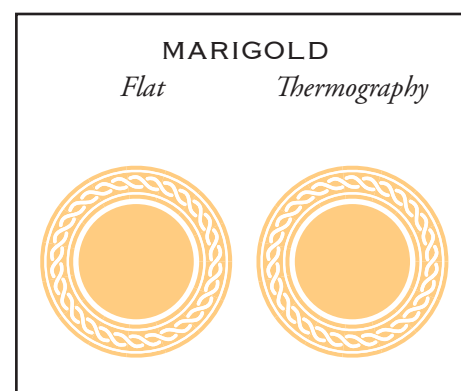
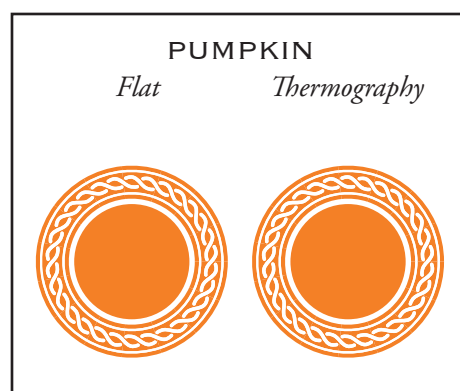
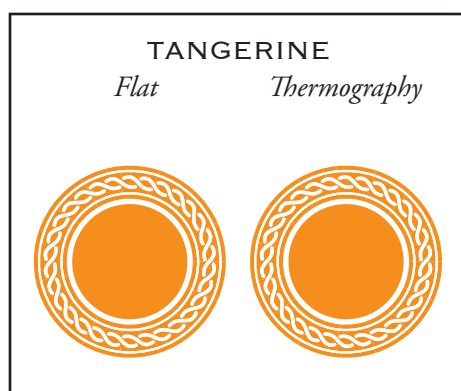
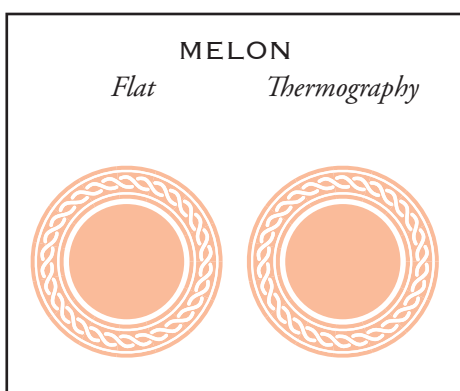
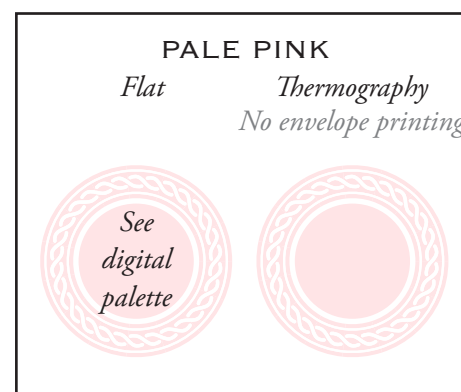
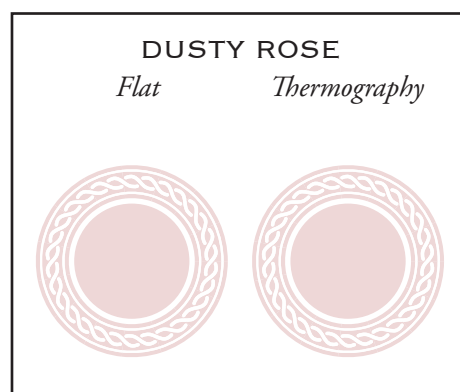
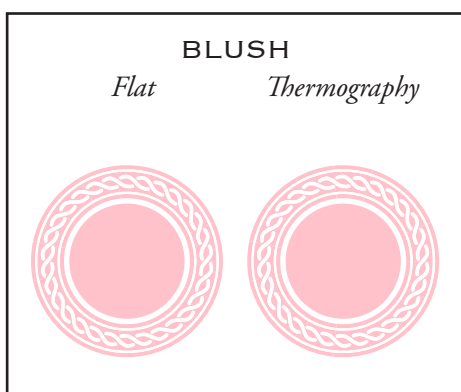
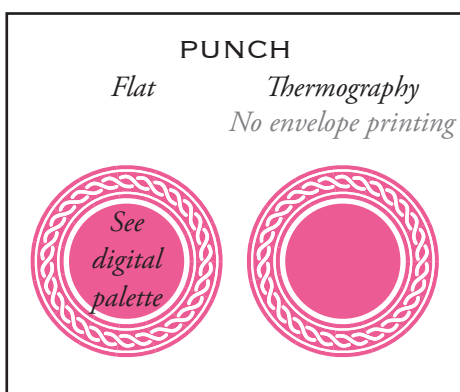
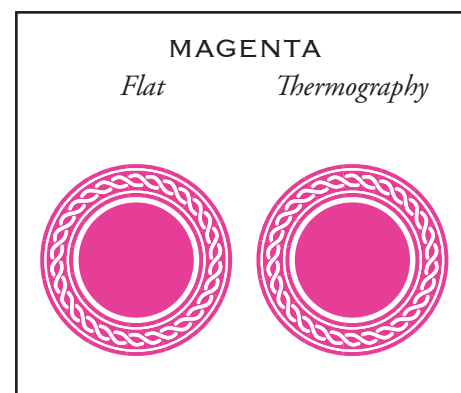
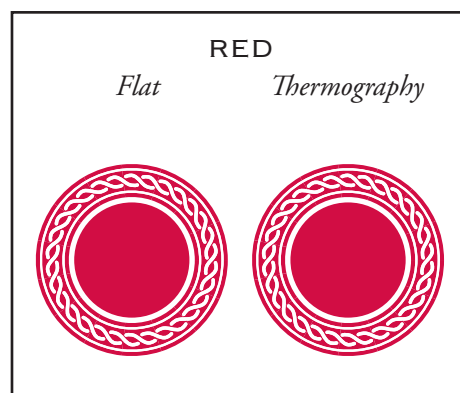
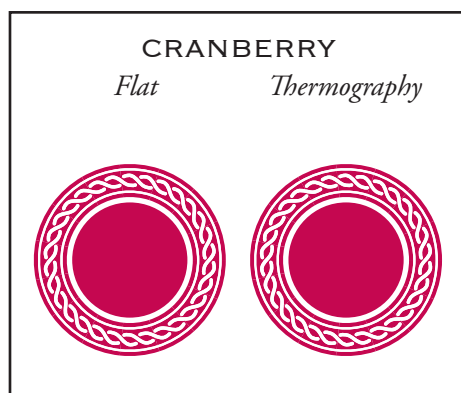
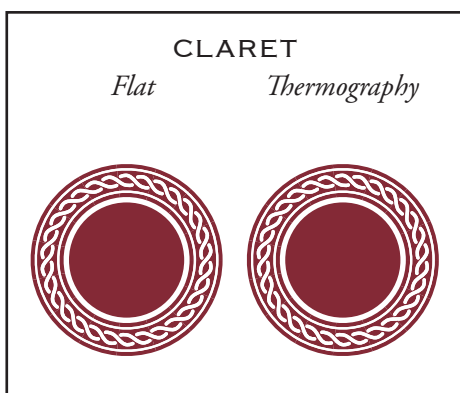
Choose from any of our eggshell, smooth matte or smooth metallic stocks! These tighter fibered cardstocks work beautifully for thermography.

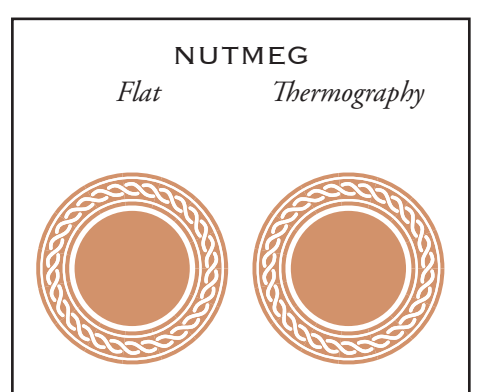
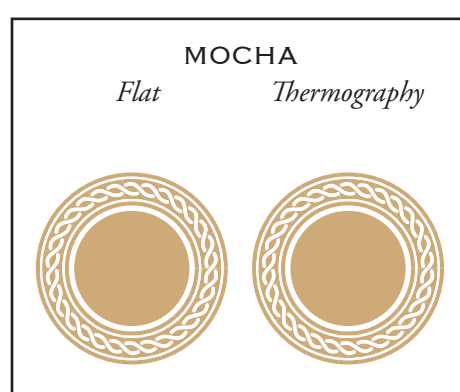
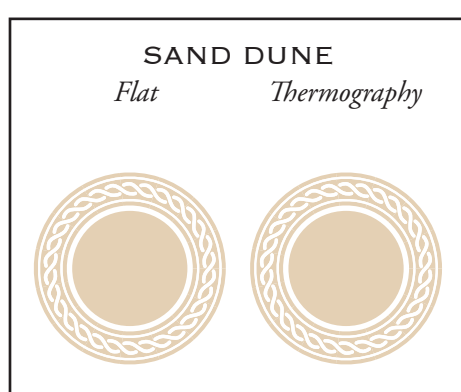
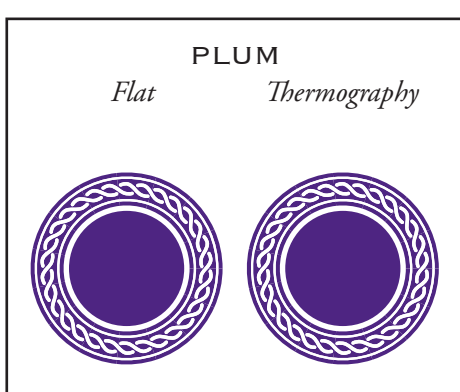
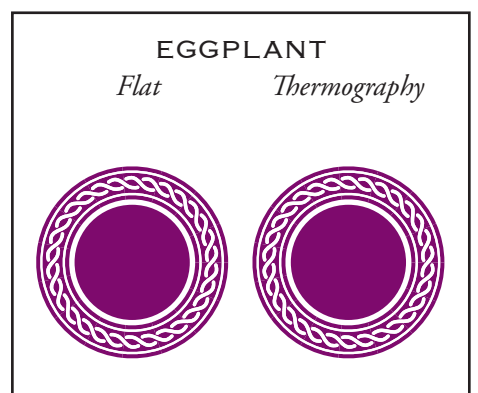
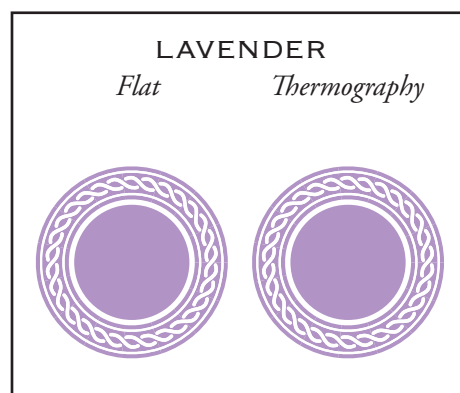
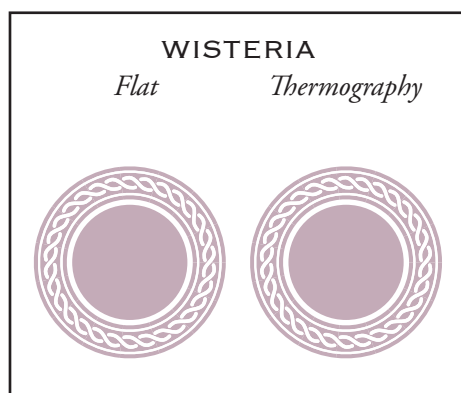
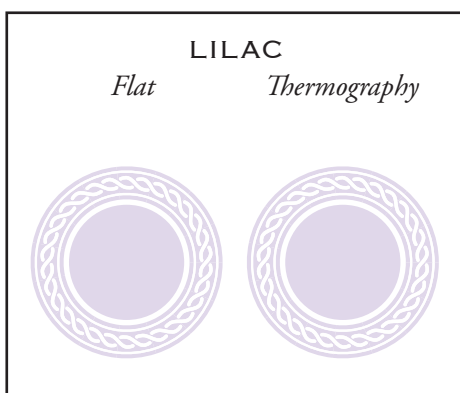
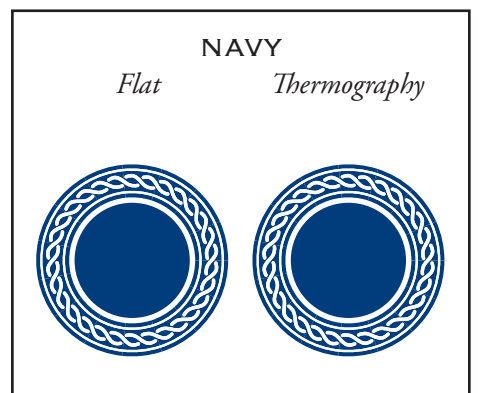
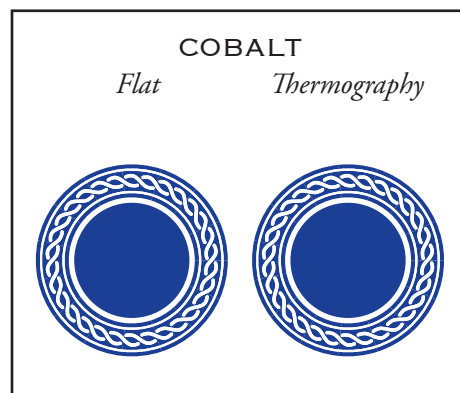
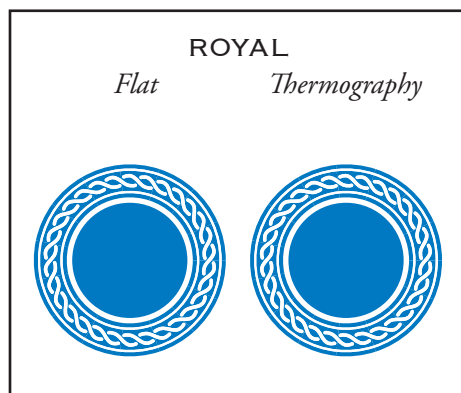
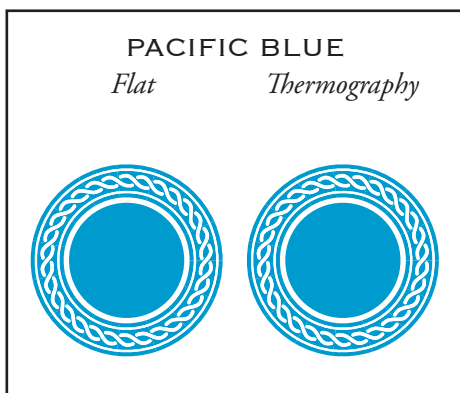
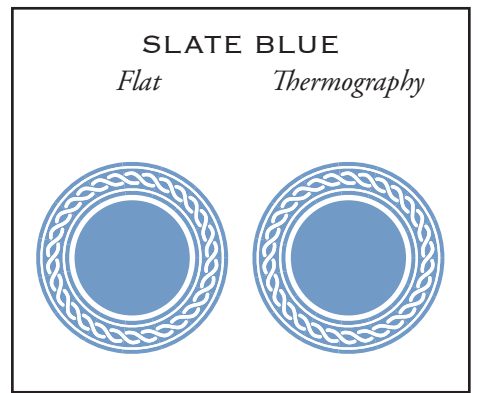
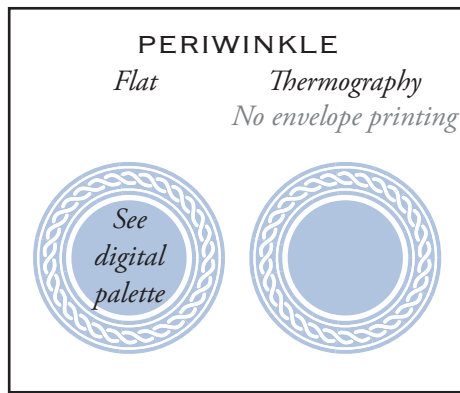
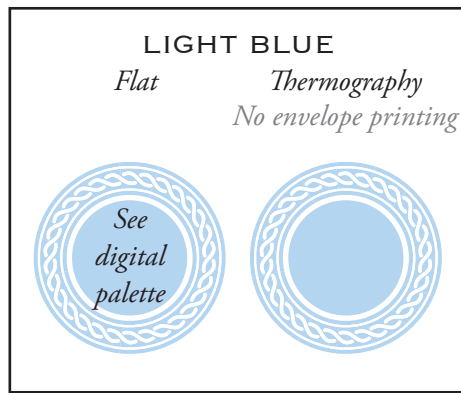
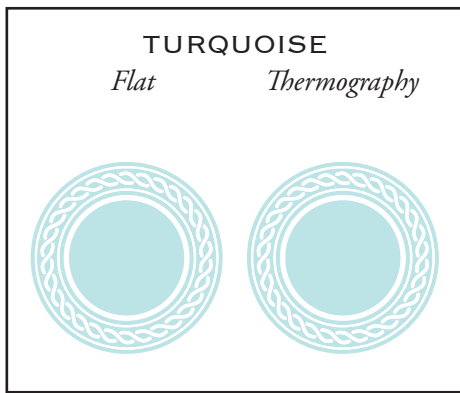
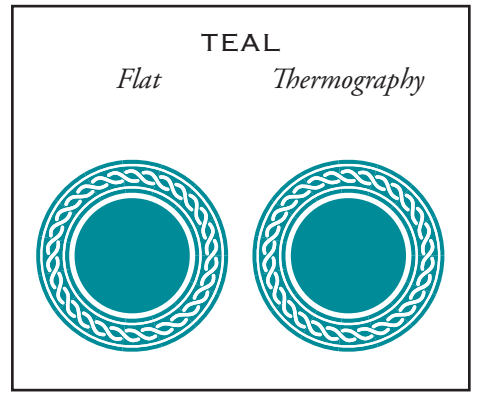
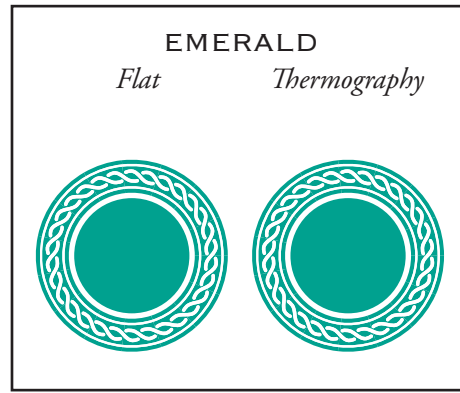
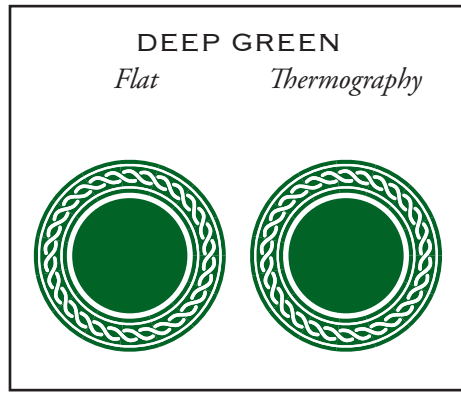
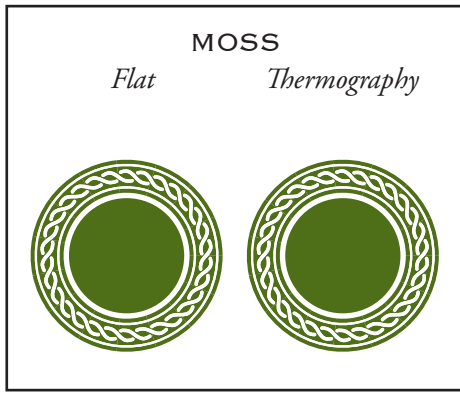
Textured stock can be trickier to print upon. The ink transfers from a press blanket to the paper and cannot easily get into the grooves of heavily textured paper.

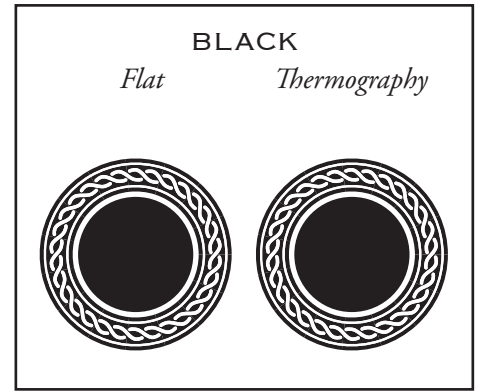
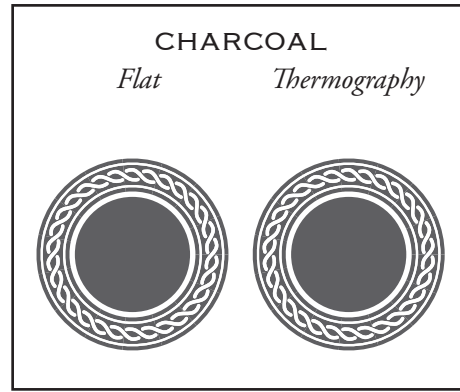
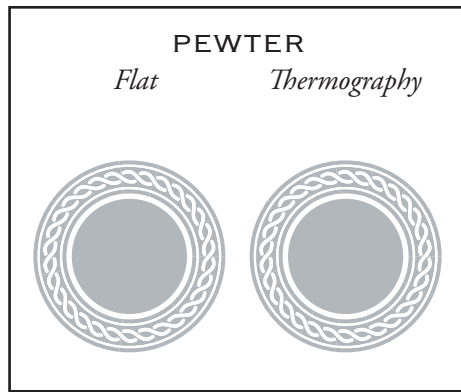
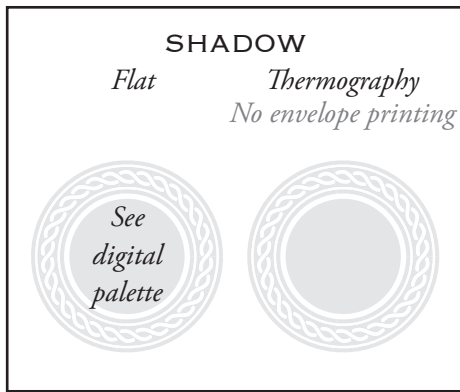
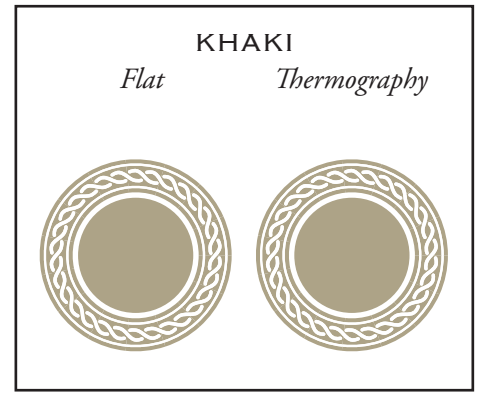
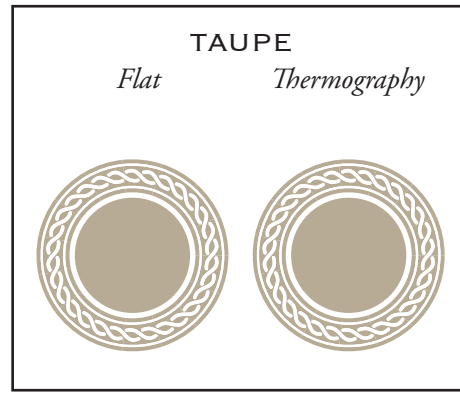
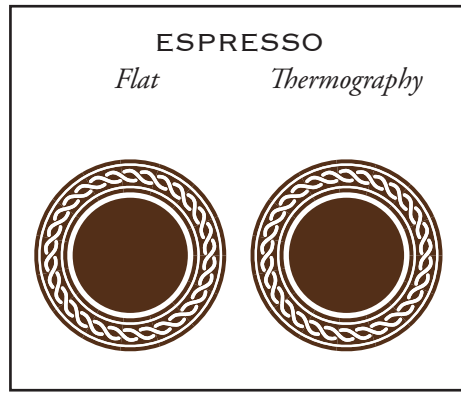
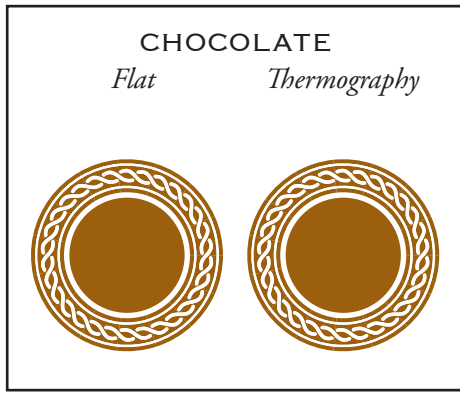
The weight and porous nature of lettra make it not thermography friendly.

Paper can also be supplied. Contact us for details.



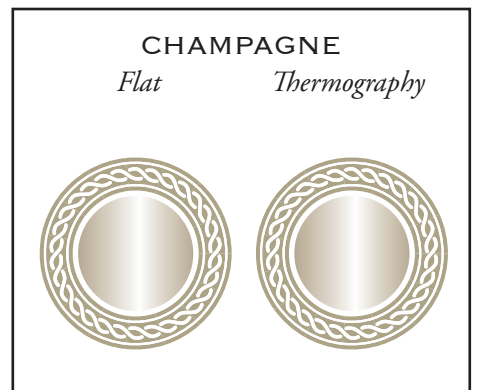
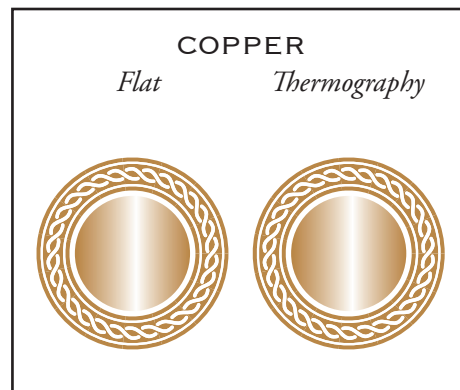
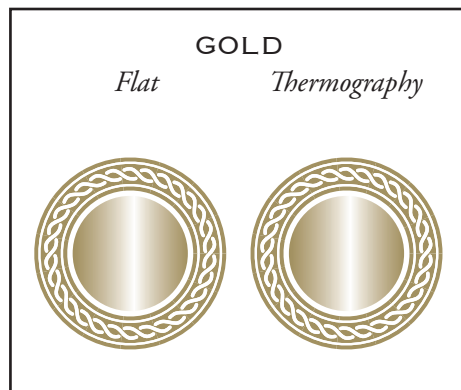
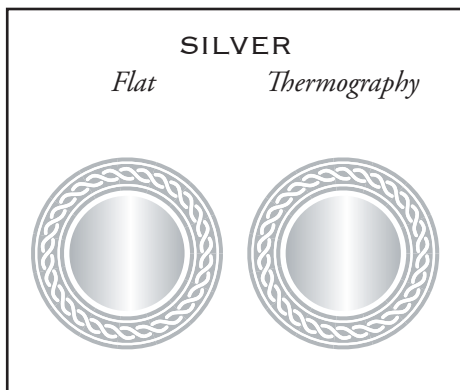






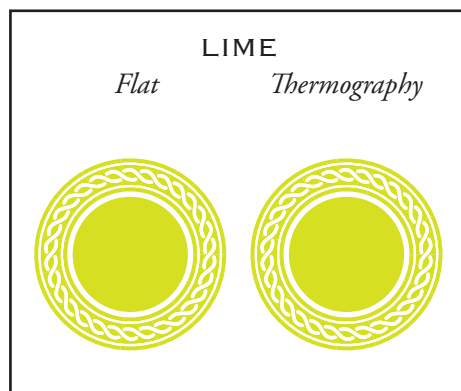
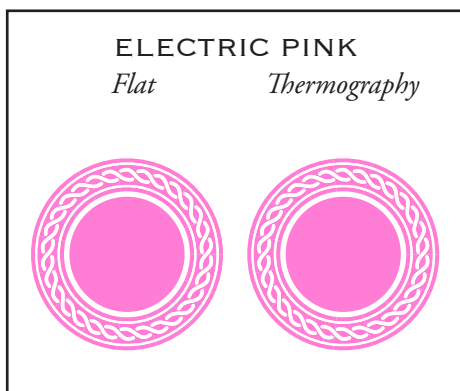
METALLIC THERMOGRAPHY INKS

*\* metallic inks will maintaining their shimmer but are not recommended for flat printing on metallic stocks. Not available in full color thermography*



NEON THERMOGRAPHY INKS

*\* neon inks are not available in full color thermography*



## *lettra*

The combination of its weight and loose fibers that absorb ink very quickly make it not thermography friendly

The exception is lettra envelopes, which are thin enough to run on a thermography press, although the ink will be less raised than on eggshell stock

ENVELOPE COLORS: Fluorescent White, Pearl White  
(to coordinate with eggshell)

## *eggshell*

A smooth stock with a slightly textured surface that works perfectly for thermography

COLORS: Fluorescent White, Pearl White, Fawn  
WEIGHTS: 120# (1-ply), 240# (2-ply), 360# (3-ply),  
or any other variety of lush weights!

Works well in combination with letterpress, foil stamping, and full color digital printing

## *matte cardstock*

Smooth, matte finish stocks between 80# and 100#  
Keep in mind colored stocks can affect the final thermography ink color (final color = paper + ink)

COLORS: A wide assortment; see paper swatch deck  
WEIGHTS: 1-ply, 2-ply, 3-ply, or any other variety!

Works well in combination with letterpress, foil stamping, and full color digital printing

## *metallic cardstock*

Smooth, metallic finish stocks (like Stardream) between 100# and 110# ; Keep in mind colored stocks can affect the final thermography ink color (final color = paper + ink)

COLORS: A wide assortment; see paper swatch deck  
WEIGHTS: 1-ply, 2-ply, 3-ply, or any other variety!

Works well in combination with foil stamping and full color digital printing

## *specialty papers*

WOOD VENEER is not recommended for thermography

VELLUM OR TISSUES are thinner stocks that work well with thermography

HEAVILY TEXTURED STOCKS are not recommended for thermography because the texture interferes with the interaction between the ink and thermography powder which creates the raised effect

## *supplied papers*

Clients can supply custom stock

Supplied stock takes extra handling and care on our side, therefore discounts are not applied to supplied stock

Please contact us before purchasing your supplied stock so we can confirm its printability and suggested supplied size and quantity

THE SIZES SHOWN APPLY TO CARDS WITH CORRESPONDING ENVELOPES.

CARDS NOT REQUIRING AN ENVELOPE, USED IN A POCKET, OR USED WITH A SUPPLIED ENVELOPE CAN BE CUT TO ANY SIZE.

THERE IS NO CHARGE FOR CUSTOM CUT SIZES!

**EXTRA-LARGE CARD SIZES**

5.75" x 9.25" A10	6.25" x 9.125" Royalty	5.75" x 8.75" A9 Outer	6.13" X 8.13" 800E	8.25" x 8.25" Extra-Large Square	7.25" x 7.25" Extra-Large Square
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**LARGE CARD SIZES**

4" x 9.25" No. 10	5.5" x 8.5" A9	5.88" x 7.88" 700E  <i>*Deckled edges are not an option with thermography</i>	5.25" x 7.875" A8	7" x 7" Marquis Outer	6.75" x 6.75" Marquis
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**STANDARD CARD SIZES**

5.25" x 7.25" A7 Outer	3.625" x 7.25" Monarch	5" x 7" A7	4.525" x 6.69" 600E  <i>*Deckled edges are not an option with thermography</i>	4.625" x 6.25" A6	4.25" x 5.5" A2	5.25" x 5.25" Baronial	3.35" x 5.125" 500E  <i>*Deckled edges are not an option with thermography</i>	3.5" x 4.875" 4Bar
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*\*Because of their irregularity and how they feed on press,  
Arturo papers with hand torn deckled edges are not an option with thermography printing*

	Envelope Size	Card Size to fit envelope	FL White Lettra	Pearl White Lettra	Ecru Lettra	120# FL White Eggshell	120# Pearl White Eggshell	120# Fawn Eggshell	Smooth Colored Papers	Metallic Papers	Arturo Bright White, Soft White, Sage, Taupe, Pale Pink
300gsm or Cardstock						•	•	•	•		•
Liner Paper (text weight)						•	•	•	•		•
4Bar Pointed Flap	5.125" x 3.625"	4.875" x 3.5"	◆	◆							
4Bar Square Flap	5.125" x 3.625"	4.875" x 3.5"				•	•	•	• see swatch book for available colors		
4Bar Euro Flap	5.125" x 3.625"	4.875" x 3.5"				•	•	•			
A2 Square Flap	5.75" x 4.375"	5.5" x 4.25"				•	•	•			
A6 Square Flap	6.5" x 4.75"	6.25" x 4.625"				•	•	•			
A7 Pointed Flap	7.25" x 5.25"	7" x 5"	◆	◆							
A7 Square Flap	7.25" x 5.25"	7" x 5"				•	•	•	• see swatch book for available colors		
A7 Euro Flap	7.25" x 5.25"	7" x 5"				•	•	•			
A7 Double Envelope Pointed Flap	7.5" x 5.5"	7" x 5"	◆	◆							
A8 Square Flap	8.125" x 5.5"	7.875" x 5.25"				•	•	•			
A9 Square Flap	8.75" x 5.75"	8.5" x 5.5"	◆	◆		•	•	•	• see swatch book for available colors		
A9 Double Envelopes Square Flap	9" x 6"	8.5" x 5.5"	◆	◆							
A10 Square Flap	9.5" x 6"	9.25" x 5.75"				•	•	•			
Royalty Pointed Flap	9.625" x 6.43"	9.125" x 6.25"	◆	◆							
Monarch Pointed Flap	7.5" x 3.875"	7.25" x 3.625"	◆	◆							
No 10 (Tea Length)	9.5" x 4.125"	9.25" x 4"				•	•	•	• see swatch book for available colors		
Baronial (5.5" Square) Square Flap	5.5" x 5.5"	5.25" x 5.25"				•	•	•			
Marquis (7" Square) Pointed Flap	7" x 7"	6.75" x 6.75"	◆	◆							
Marquis (7" Square) Square Flap	7" x 7"	6.75" x 6.75"	◆	◆							
Marquis Double Envelope Pointed Flap	7.25" x 7.25"	6.75" x 6.75"	◆	◆							
7.5" Square Square Flap	7.5" x 7.5"	7.25" x 7.25"				•	•	•			
8.5" Square Square Flap	8.5" x 8.5"	8.25" x 8.25"	◆	◆							
500E*	5.51" x 3.54"	5.125" x 3.35"									•
600E*	7.09" x 4.72"	6.69" x 4.525"									•
700E*	8.38" x 6.13"	7.88" x 5.88"									•
700E Double Envelopes	8.63" x 6.38"	7.88" x 5.88"									•
800E*	8.63" x 6.38"	8.13" x 6.13"									•

◆ Lettra envelopes are an option when eggshell envelope sizes are not available

\*Because of their irregularity and how they feed on press, Arturo papers with hand torn deckled edges are not an option with thermography



### *thin lines*

While thermography printing handles thin and thick lines well, thinner lines may be less raised due to the smaller amount of powder that adheres to the thin line of ink.

MINIMUM LINE WEIGHT: 0.3pt

*Line weights below 0.3pt are prone to break or disappear when printed.*

RAISED EFFECT: less raised

### *solid areas*

Larger areas of solid ink or floods of color print beautifully in thermography.

RAISED EFFECT: more raised

### *mix of thin lines & solids*

Thermography performs well with a mix of thin and thick lines. Keep in mind that when there is less ink there will be less powder, so thinner lines may be less textured than more solid areas.

RAISED EFFECT: varies based on line weight and paper

### *high coverage*

Thermography printing handles large areas of ink quite well, resulting in a flood of raised printing.

RAISED EFFECT: more raised

### *overlapping colors*

Thermography ink colors cannot touch or overlap one another.

WHAT ABOUT OTHER PRINT METHODS?

CAN OVERLAP: flat, full color digital printing

CANNOT OVERLAP: thermography, letterpress, foil

### *print area & registration*

MAXIMUM PRINT AREA: 11" x 17.5"

REGISTRATION: we recommend color registration be at least  $\frac{1}{16}$ " apart

FRAMES: we recommend they be at least  $\frac{1}{4}$ " -  $\frac{3}{8}$ " away from the cut edges of the card