

stationery works

HOME OF
CHECKERBOARD | DESIGNERS' FINE PRESS | LALLIE

Thermography & Flat Printing

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Paper Types

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.

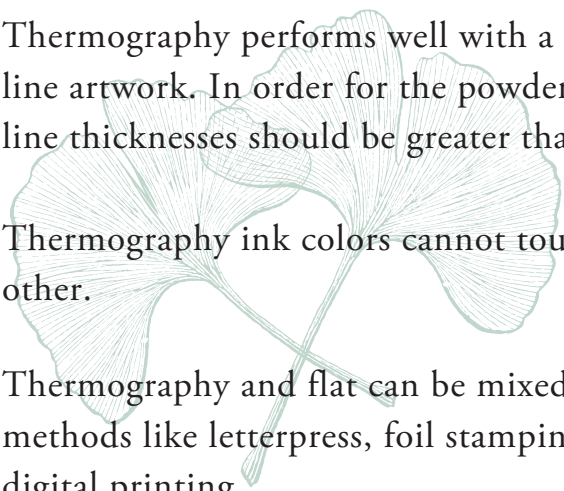
To get the signature raised effect of thermography, a printed piece undergoes three additional steps. First, thermography powder is sprinkled onto the card. Some powder bonds with the wet ink while the excess is removed. Then the card is heated to melt and activate the powder which raises the ink. The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

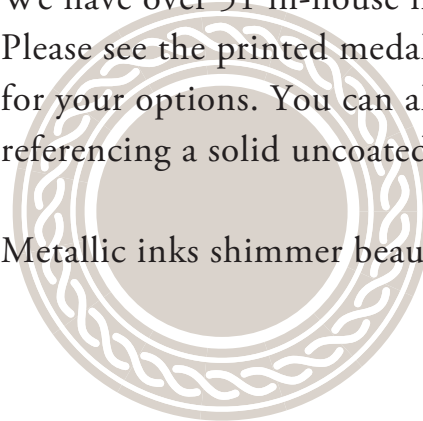
Thermography and flat can be mixed with other print methods like letterpress, foil stamping, and full color digital printing.



the colors

We have over 51 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.



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>

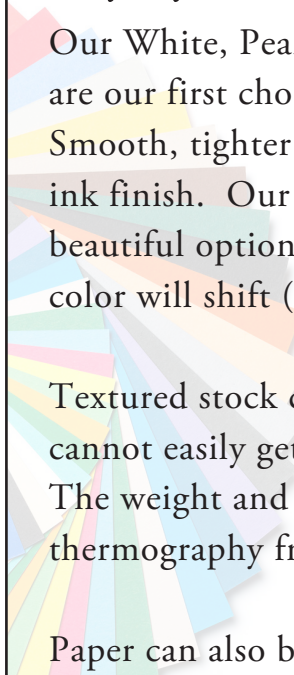
Keep in mind that light inks will not show up well on dark stocks.

the papers

Our White, Pearl and Cream 130# Cover canvases are our first choice for thermography and flat designs! Smooth, tighter fibered stocks enable a beautiful raised ink finish. Our matte and metallic cover stocks are also beautiful options. Keep in mind the final printed ink color will shift (see “opacity”) on a colored stock.

Textured stock can be trickier to print upon. The ink cannot easily get into the grooves of a textured paper. The weight and porous nature of lettra make it not thermography friendly.

Paper can also be supplied. Contact us for details.



THE INKS

Thermography and Flat inks are semi-translucent and final color is affected by the color of the paper the ink is printed upon. We recommend referencing our ink swatch decks for the best finished color assessment.

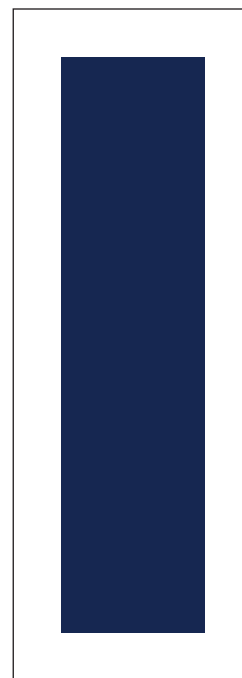
There is a swatch deck on White, Pearl and Cream. The printed medallion incorporates finer lines as well as a larger area of solid coverage. Colors such as metallics and neons also have a Flat option because their color or finish cannot be achieved on a digital press. Flat inks are printed on the same press as Thermography but without the powder and heat that create the raised effect.



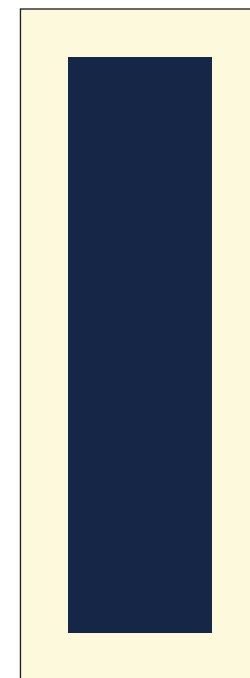
MORE ON SEMI-TRANSLUCENT: MATTE COVER STOCKS

Similar for both Matte and Metallic Cover: *Thermography inks are semi-translucent. The final color is affected by the color of the paper the ink is printed upon. Inks are formulated based on their color when wet on white paper. For purest color results, we recommend printing on our White 130# Cover.*

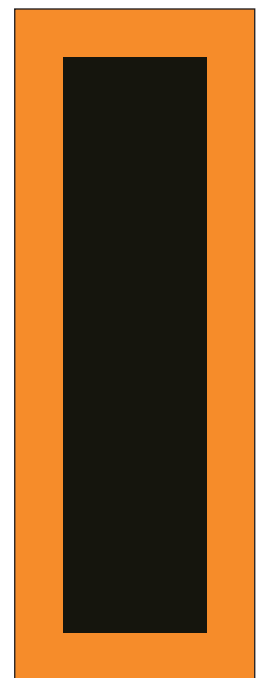
When printing on a **Matte Colored** paper, you can anticipate the ink color *shifting darker*. The amount of shift depends upon the “strength” of the paper color. See our example which simulates Twilight Ink on White compared to Twilight ink on Cream and CPFlame.



Twilight on White



Twilight on Cream

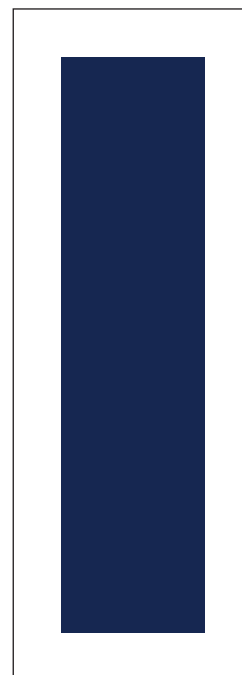


Twilight on CPFlame

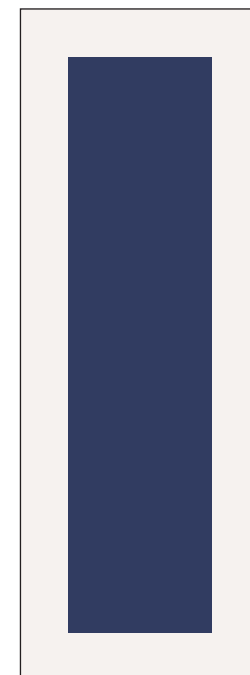
MORE ON SEMI-TRANSLUCENT: METALLIC COVER STOCKS

Similar for both Matte and Metallic Cover: *Thermography inks are semi-translucent. The final color is affected by the color of the paper the ink is printed upon. Inks are formulated based on their color when wet on white paper. For purest color results, we recommend printing on our White 130# Cover.*

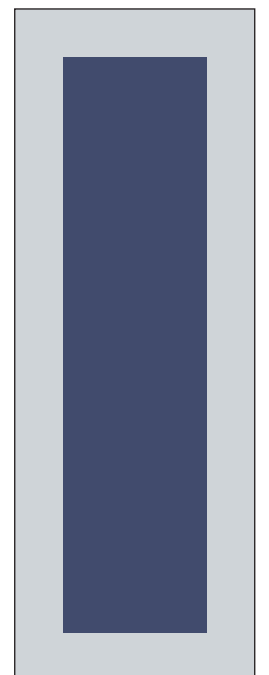
When printing on a **Metallic Cover** paper, you can anticipate the ink color *shifting lighter*. The amount of shift depends upon the “strength” of the paper color. See our example which simulates Twilight Ink on White compared to Twilight Ink on Stardream Opal and Stardream Silver.



Twilight on White



Twilight on SD Opal



Twilight on SD Silver

Letterpress

Letterpress stocks are only recommended for letterpress printing. Their weight, looser fibers and absorbency make them incompatible for both thermography and flat printing.

white cover

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

COLORS: White, Pearl, Cream

WEIGHTS: 130# (1-ply), 260# (2-ply), 390# (3-ply),
or any other variety of lush weights!

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

matte colored cover

Smooth, matte finish colored stocks are typically 100#
Keep in mind colored stocks can affect the final 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 cover

Smooth, metallic finish stocks (like Stardream) between 100# and 110# ; Keep in mind colored stocks can affect the final 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 most successfully printed with Flat ink

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

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"

SIDES: single layer cards have Thermography on 1 side

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