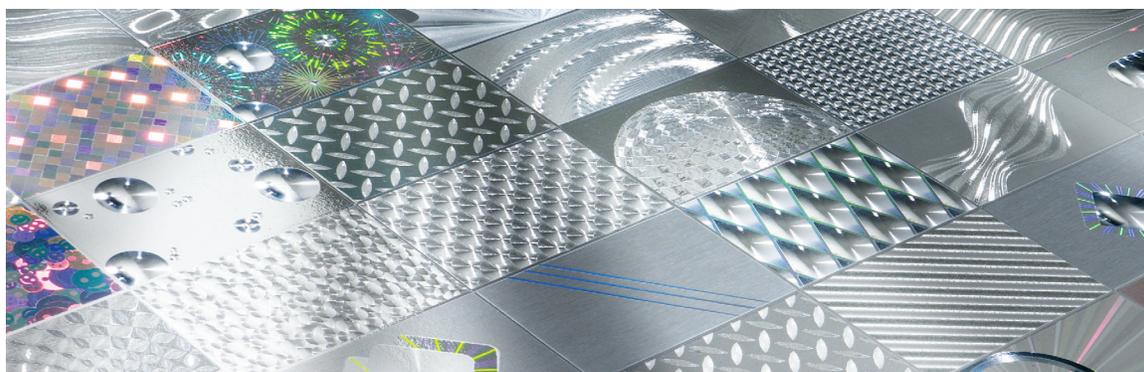




TIPS & TRICKS FOR PRINTING ON FOIL SHEETS

INTRODUCTION:

Foil films take cards from average to avant-garde. With foil, designers have the freedom to create dramatic images including cityscapes with lighted windows, water that seems to be in motion, and accents that transform cards from plain to prestige. These effects do not come without technical challenges: This *Tips & Tricks* details what you need to know to make sure that your foil cards look as stunning in the wallet as they do in the design department.



Tip: Smooth-surface foil cards have unique requirements.

A card's "wow" factor quickly fades when something goes awry during printing. Ideally, a printed card surface will have good ink/coating adhesion, no color shift, and low dot gain. With their mirror-smooth surfaces, full-face foil cards must be handled carefully or even slight imperfections may be magnified.

Tricks:

1. Consider using a topcoat. Foil films from kp can be supplied with a variety of print-receptive topcoats that provide a uniform, smooth print surface. The topcoat can be chosen to match the offset ink. When using a topcoat, it is not necessary to apply additional primers to the foil layer.
2. Opaque white should be the first color printed on a silver foil sheet. There are several reasons why:
 - Opaque white is critical to gain the full foil effect
 - An offset white is sufficient to hide the foil effects where needed yet produces a white enough surface to allow for relatively accurate color match
 - A white screen gives a gradual transition from flat color to foil reflective color
 - Press color-control scanners work best if the color bar is printed on an opaque white surface. Similarly, collator and punch equipment sensors perform best with black or very dark marks printed on an opaque white surface

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3. Registration between the opaque white and colors can be more easily maintained if offset printing is used for both whites and colors rather than using silk screen white.
4. Best print results happen with the lightest ink application possible. Because the use of a white to knock down the reflective look of the foil is often required to create contrast between reflective and non-reflective art elements, too much ink causes issues at lamination. Keeping the ink levels as low as possible reduces this possibility.
5. Foil reflectivity can be reduced or enhanced by altering ink opacity. Mixing a small amount of opaque white into a transparent color will change the foil reflectivity. The same thing can be accomplished by running a heavier film or a double hit when printing a dark color.

Tip: Static and foil are not a good combination.

Static is created during card manufacturing. While it's difficult to predict how much static will be generated with foil, it's important to handle foil cards in a manner that does not generate enough static to cause sheets to stick together during manufacturing or even cause EMV chip damage.

Tricks:

1. Most modern presses are equipped with anti-static devices. Having air-ionizers installed on the forwarding and separating air on the press feeder is a best practice. Having a static bar installed on the feeder where the sheet leaves the pile and where the sheet enters the press also is advisable.
2. Condition sheets before printing. Unconditioned sheets will print successfully, but it's best to condition sheets before printing by unwrapping and storing them in 45-50% humidity for 24 hours.

To learn more about using foil films for cards, download kp's free White Paper [Introduction To Foil Sheet For Cards](#) or email kp at info@kpfilms.com.

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