

SCREEN PRINTING CHEAT SHEET

INK TYPES

Waterbased:

As the name implies, this ink uses water as a base. This allows for a soft feel, and less toxic cleanup.

Pros: soft, eco friendly

Cons: prone to drying in the screen, which limits us to 3 color prints typically. Also dries up in fine detail and half tones, dry waterbased ink will not pass through the screen and therefore will not print

Discharge:

Discharge is a waterbased ink that is activated by a chemical powder, which allows it to bleach the cotton fibers of a garment. Not limited to white or off white print colors, we can add color to the discharge to allow for color prints.

Pros: soft when washed, breathable for large surface area prints, bright and does not crack over time

Cons: only effective on 100% cotton, not good for fine detail

Plastisol:

This ink is PVC based and is easier to work with than waterbased. It will not dry (cure) at room temperature and instead must be heated to ~340°F for a set time. Cleans up with solvents.

Pros: opaque, easy to work with

Cons: thick prints don't breathe and can crack over time



PRINTING METHODS

CMYK:

This printing method is a process print, meaning tiny dots of a few colors make many colors. In this case, it's cyan, magenta, yellow and black.

This method is good for photographic images on light colored shirts that contain a good amount of cyan, magenta, yellow or black. Fat Tony Exotica would be a good example.

Pros: fewer screens, full color

Cons: narrow color gamut

Spot Color:

This printing method uses solid areas of color. A spot print is the opposite of a process print, only solid areas of ink. Half tone dots would still be considered solid areas if they don't blend with other colors.

Pros: Easier to control color, solid, bold

Cons: we are limited to 8 colors, and 7 is ideal for ease of printing

Spot Process:

Similar to CMYK, except colors are chosen that are relevant to the image. This method can use a white underbase to help make shadow areas and a top white to make bright white pop.

Pros: wide color gamut, full color, best color matching for photos

Cons: many screens, difficult to separate and colors often require adjusting on press

OPACITY STYLES

Vintage:

This style deposits the least amount of ink that will still adhere to the fibers and be washfast. Typically one fast pass.

Pros: reduced opacity for a distressed, aged look

Cons: not for use with underbases, shirt color can show through

Standard:

Standard prints consist of one or two passes of the squeegee. This style is the standard, not bright nor faint.

Pros: good for dark colors on light shirts

Cons: printing light on dark color shirts can with this style will allow shirt color to show through the ink some

PFP/UB:

PFP stands for print, flash, print. The printer does two passes, partially cures the ink, and does one more pass while it's still on the press. UB stands for underbase. An underbase is white most of the time, and acts as a primer, allowing for more opaque prints.

Pros: bright and solid

Cons: Not for vintage appearance, can be thick on the shirt



INK ADDITIVES

Finesse:

This, along with Fashion Soft Base, make the print softer and more flexible. This can be good for clients concerned with a heavy print.

Stretch/Poly:

Prints on polyester, nylon, rayon and other synthetic garments require ink additives to allow for the ink to stretch and cure properly. Faster dryer speeds also.

Dye Blocker:

This additive is used to keep the dye from shirts from bleeding into the ink. Dye sublimated shirts, like some camo, are the worst about this, but heavily dyed shirts can be a problem.

Pros: prevents dye migration

Cons: makes print thick

Puff:

This ink puffs when heated and leaves a raised print. Not good for fine detail or large areas.

Stretch/Low Cure:

This additive helps ink cure at a lower temperate and stretch along with a stretchy fabric.

METALLIC PRINTS

Metallic Ink:

This ink contains small flecks of reflective metallic material. Since this ink is reflective, a longer cure time can apply. Due to its heavy consistency, a coarse mesh screen is required.

Metallic Foil:

To use foil, an adhesive is printed and cured. Then the foil is heat pressed onto the shirt and sticks to the adhesive, the excess is pulled away.

Crystallina:

This semi transparent ink contains tiny opalescent beads, giving a shimmery appearance when printed. This can be added to an ink, or printed on top of an ink.



HEAT TRANSFERS

Why Transfers:

Heat transfers allow us to decorate challenging objects, such as hats, fanny packs, and face masks. The image is printed onto a carrier sheet, and we use heat and pressure to transfer the image onto the substrate.

Digital:

We use Supacolor for our digital transfers. They are digital in the sense that they are printed by a computer, not a physical screen. They allow for the maximum amount of detail. Please refer to their sales guide for all the print specs.

Plastisol:

Plastisol screen printed transfers allow for different types of ink to be used. These include metallic, glitter, and others. These tend to be more opaque and bold than the digital transfers, but with less fine detail.

KNOW YOUR CLIENT, SOME EXAMPLES

Blue Collar:

Includes plumbers, roofers, welders and other tradespersons. These clients often request heavy cotton shirts. They are flame resistant if they are welders, for example. They also usually prefer a left chest print, with a large back print.

Gym/Crossfit:

This client usually like a blended fabric, something that breathes well since they're sweating. They also like tanks, crops and ladies tees. More form fitting garments. More subtle graphics complement this lighter fabric.

Food & Drink:

These clients vary, but they typically like nicer clothes. Think garment dyed tees and premium caps, for example. Matching to brand Pantone colors is often imperative to these clients.

WOVEN LABELS

Embr. vs woven:

Embroidered patches and labels have less detail, but a 3d raised surface. Woven labels are flat and are capable of more detail.

SOME GENERAL "DOS"

UB Colors:

Do use a white underbase when you want bright colors on a dark garment. Also, if the design has white in it, use a top white, rather than using a PFP underbase. PFP underbases get sticky and pull up other colors.

Two Ply:

Do limit two ply garments to one color prints. The bottom ply will stick to the pallet on the press, but the top part (what we print on) will move around freely. This makes it impossible to register multi color prints. The exception is the jacket clamp on the manual press.

SOME GENERAL "DON'TS"

Print Sizes:

Don't exceed our maximum print sizes, without checking with production and prepress first. The sizes are not only limited by the size of the squeegee, other factors play into them.

Fold Types:

Remember to consider which fold type to use. For neck tags we typically use Centerfold, with a sew allowance at the top. Manhattan or End Fold can be good for hem labels or hat labels.

Tag Prints:

Do be aware that inside labels/neck tags on light or thin garments may show through to the outside. Use a light grey to mitigate this.



Label folds



Straight cut

Endfold

Centerfold

Miter Fold

Manhattan Fold

Loop fold

Book Cover fold

label Backing



Nothing backing

Iron-on backing

stick-on backing

Seams/Hems:

Don't print too close to a seam or hem. Any change in the fabric thickness can cause an uneven and unsightly ink deposit. This includes ribbed fabric, like found on tank tops. 1" from seam is a good rule of "thumb."

Fleece:

Don't print neck tags on fleece without first explaining to the customer that the print will be rough. Likewise printing on the outside of fleece, or other coarser fabrics, can present a challenge and reduce the amount of detail we can achieve.