

The Softer Side of Plastisol

Specialty additives have turned bullet-proof prints of the past into ancient history.

BY CARA CHERRY

The thick plastisol screen prints that defined T-shirt decoration for decades are now a thing of the past. Trendy slim-fit tees featuring light prints with a soft hand are in, having been popularized by the retail market. While the use of discharge printing and water-based ink can capture that aesthetic (and helps explain their rise in popularity), there is still a place for plastisol inks to do the same by utilizing new ink technologies.

Hands down, plastisol has been the standard for screen printers for many years. It is fairly easy to use, and some of its benefits include its low cost and long shelf life. However, since it sits on the fabric and does not settle into the fibers like other methods, it's known for having a heavier feel with a plastic-like texture.

But there have been many advancements and changes to plastisol inks. Manufacturers now offer inks that stretch, glow-in-the-dark, shimmer and puff. Soft additives are also available and can be used to achieve softer feel and vintage-like designs. "I think more and more screen printers are learning how to use reducers, soft-hand additives and higher mesh counts to achieve soft, high-quality prints with less time and effort," says Ryan Moor, CEO of Ryonet (asi/528500).

The technology meets a continuing demand for retail-like prints. "In the past year, we've seen requests for soft and distressed prints increase by 80%," says Andy Shuman, general manager of Rockland Embroidery in Topton, PA. "Using a soft-hand additive has allowed us to continue to use plastisol inks, but still offer softer prints. This is especially important for us in terms of cost, since most of what we print is geared towards corporate America, and requires regular plastisol inks to ensure exact color matching."

Plastisol inks can be used for discharge printing as well. The biggest benefit to discharge is there is no hand to the design because the ink is actually within the garment fabric. There can be some downsides in terms of which garment colors can be printed on as well as exact color matching. "We had a large order recently that required a white design on a royal blue shirt, and the customer requested discharge printing," says Jim Drysdale, managing partner for Detroit Shirt Company. "Halfway through production, we hit a different dye lot and the white print turned into a blueberry color on the shirts." Drysdale says the printer prefers

using plastisol additives instead of discharge; when doing discharge, the company uses Plasticharge, an additive that mixes with plastisol for discharge prints.

As an alternative to plastisol, water-based inks have become a popular option, but some decorators have been shy to run with it because the process can be more time-consuming and labor-intensive. "We've had a lot of challenges with water-based inks," says Mary Poissant, marketing and sales at Apple Imprints in Buffalo, NY. "Running them through the press and keeping the print looking good without drying in the screens can be difficult. Once the screen starts drying, we have to stop the press and wipe down the screen, which slows production to a crawl, incurring costlier run charges."

Giving a Soft Touch

So what exactly are soft-hand bases? They are clear plastisol base additives that reduce the thickness of the ink, allowing it to penetrate deeper into the fabric. The final print will have a softer feel and will not appear as shiny. However, it does reduce the opacity of ink and mutes the colors. Since they are generally plastisol-based, the cure process is

almost the same. Curable reducers can also be used to reduce the viscosity.

"Besides using a curable reducer and soft-hand or fashion base to achieve a soft-hand print, mesh count is probably the biggest contributor to control the hand or feel of the shirt," according to Moor. Stepping up your mesh count to 200 or 230 will make your shirt and final print feel better and it will also reduce your ink consumption. Moor points out as well that production time can be drastically reduced by "speeding up the squeegee" and reducing the amount of flashes needed to cure the ink.

The best news is that there is a built-in audience looking for soft designs. Detroit Shirt Company makes shirts designed to show Detroit in a positive light, and works with local artists to create stylish products. "Our apparel is designed with the fashion-forward customer in mind," says Drysdale. "They want stylish, slim-cut tees and designs with virtually no hand to them. We've had really good success by using the plastisol additive, and we're still able to offer traditional plastisol prints on custom orders."

In addition, corporate clients are beginning to embrace the same kind of designs. "At Rockland, we are receiving orders from schools and companies that are now beginning to embrace trendier designs," says Shuman. "While many companies generally want to match corporate colors, there is a lot of room to create shirts for special events, team building, anniversaries, etc."

Given the consumer demand, plastisol additives are a perfect option for screen printers that have large inventories of plastisol inks. The best bet to a successful application is to test different amounts of reducer with different designs until you find the one that gives you the best results and minimal color loss. With ink manufacturers developing new inks every day, achieving chic looks and retail worthy designs can open the door to many new and potential clients.



Soft-base additives used by Rockland Embroidery (circle 147 on Free Info Card) allow the decorator to reproduce vintage designs with very little hand.

These shirts from Detroit Shirt Company (circle 148 on Free Info Card) were printed with Plasticharge, a soft additive for plastisol that creates a minimal hand to the decoration.

EQUIP YOURSELF

Here is a list of supplies and equipment you'll need to create trend-worthy designs with plastisol. All products available from Ryonet (); circle 149 on Free Info Card).

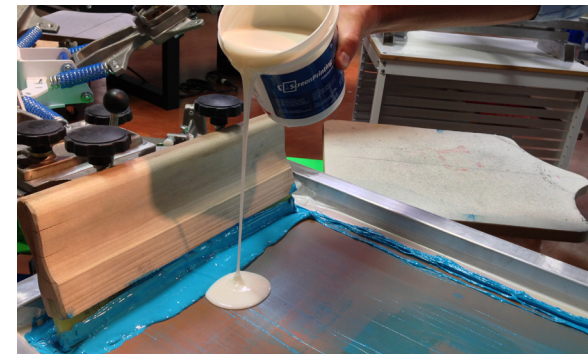
Soft Hand Additive and Curable Reducer

The Soft-Hand Additive (also known as Soft-Hand Base or Fashion Base) will allow you to create delicate designs using plastisol ink. A curable reducer thins the ink down, allowing it to go through a higher-mesh screen.



Screens

It's important to print on a higher mesh-count screen (200 to 230) to avoid oversaturating the garment. Anything else will be too low, making the ink hard to cure.



High-Tension System

Printing with higher tension also helps a screen printer achieve a soft print using plastisol inks. Many printers are adopting higher tension systems like this one.



photos courtesy of Ryonet