



# evolve

Printex Monthly News Bulletin

February 2015 | Issue 25

## TIPS OF THE MONTH

The best deed of a great man is to forgive and forget.

~ Hazrat Ali Ibn Abu-Talib A.S

As the yellow gold is tried in fire, so the faith of friendship must be seen in adversity.

~ Ovid



BE CURIOUS  
**ALWAYS!**

FOR KNOWLEDGE

**WILL NOT  
ACQUIRE YOU;**

YOU MUST

**ACQUIRE IT.**

~ Sudie Back

Courtesy costs nothing, but buys everything.

~ Hazrat Ali Ibn Abu-Talib A.S

A Mind Troubled By  
Doubt Cannot Focus On  
The Course To Victory.

~ Arthur Golden



# Perform Powerful Personalized Marketing in 4 Easy Steps

*Vice President of Marketing for Lytics  
February 11, 2015*



Kevin Bobowski

The phrase personalized marketing is everywhere and becoming a popular goal. Whether it's called omni channel, targeted or 1-to-1 marketing, it means the same thing: delivering customized and timely offers and content to customers.

It's no secret why personalization is such a hot trend: Personalization delivers results. Experian's email study based on data from 2013 found "Personalized emails are generating six times higher transaction rates and revenue per email than non personalized emails," according to the company.

While tackling personalized marketing can feel daunting, it shouldn't. To achieve great results and delight customers, you don't need to send a customized message to every customer. Here are four simple steps to get started with this quickly and create real value:

## **1. Focus on results, not just activity.**

It's easy to become activity driven instead of results oriented. Too often, marketers take on too much, leading them to feeling overwhelmed. If marketers first tackle the low-hanging fruit, they can build up to more ambitious campaigns.

If you haven't started sending personalized greetings via email, start there. Create "welcome back" offers for website visitors who haven't visited your site recently. Simple, modern tools like those offered by personalization software company Optimizely can deliver results immediately without requiring deep technical skills. Start small and find quick victories.

## **2. Act on data. Don't just collect it.**

Marketing data is everywhere, whether it's analytics for a web site or email and social media information. Don't get caught in the collection-and-reporting dynamic because not all data is easy to take action on and marketers shouldn't feel like they need to gather, analyze or use all of it.

Focus instead on how to act on data by taking bite-size chunks of useful data or diving into a single information source. Or combine data: Start off with customer email data and then combine that with social media data. Consider marketer-friendly email-marketing tools with great APIs, such as MailChimp and Campaign Monitor, that make it easy to share and connect your data from many different sources.

## **3. Get back to basics.**

Marketers often feel pressured to adopt new tactics. But email is still preferred by business-to-business sellers, according to eMarketer's "B2B Email Marketing: Benchmarks and Best Practices for 2014." Before jumping into the next cool thing, invest in proven tactics using email or a website to shape a personalized experience.

If you have the itch to try something different, consider combining what's tried-and-true with the new. Facebook's Custom Audience lets marketers create lists of people they want to target Facebook ads by using a list of email addresses. Use this tool to target email subscribers who are no longer active, for instance.

## **4. Adapt and evolve.**

Taking a first step toward a personalized marketing strategy can be intimidating. But even that can provide valuable insights, giving marketers the confidence to take further strides. Before you launch a campaign, list exactly what you want to learn.

For example, did the same creative work-and-offer combination perform better through email, the website or via social-media ads? Marketers who keep learning, experimenting and adapting are the ones who become personalized-marketing masters.

Achieving a successful personalized-marketing strategy doesn't have to be complicated and stressful. In marketing, the best paths toward happy customers may be the simplest ones. Start small, stay focused on what's achievable and be open-minded to realize great gains.



# **THREE** Common Printing Mistakes And How You Can **AVOID** Them

If you're neglecting to mix inks, ignoring retensionable screens or bearing down on squeegees, your printing could be suffering.

*Roger L. Jennings*

Do you take ink from the can and put it directly onto the screen? Do you have ink build-up under screens that you wipe clean over and over? Do you bear down on the squeegee, believing ink passes through the screen onto the garment based on how much pressure you use?

If your answer to all three questions is "yes," you could be a victim of the three most common textile screen printing errors. In fact, if you make a conscious effort to mix ink, use retensionable screens, and control squeegee angle and speed, you can solve most of your printing problems.

Each of these three areas affects the quality of printing. In combination, they can be devastating to the print, the screen, the printer, production rates and your reputation. Let's take a look at each of these three printing mistakes in more detail.

## **MIXING INKS**

All plastisol inks are shipped in a concentrated form. Some are more concentrated than others, depending on the manufacturer, color or type. Here, let's focus on plastisol inks because most textile printing is with plastisol.

In simple terms, ink is made from three ingredients: PVC (plastic), pigment (color), and plasticizer (and other additives).

### **PVC**

The PVC is the binder that will melt into, or fuse to, the garment while bearing the solid pigment. PVC is a dispersion resin in a very fine powder form like confectioner's sugar.

When combined with plasticizer and other additives, except pigment, the mix takes on a liquid form sold under

labels like clear and soft-hand clear. In the container, clear has the look of a white hand cream, but is colorless when spread out in a thin film.

Try stirring the clear or soft-hand clean in the container, and you will find that clear stirs easier than pigmented ink. Scoop some out of the can, and you will find it falls off the squeegee a lot easier than pigmented ink.

The viscosity is noticeably different. The printing characteristics are better than pigmented ink, except that there is no color. Try printing some clear through a screen. Printing is easier.

### **PIGMENT**

Color is created by the pigment which is ground into fine particles and added to the PVC and other additives. The percentage of pigment to clear PVC and additives determines the opaque vs. transparent characteristics of the color.

Multi-purpose (MP) ink has a higher concentration of pigment than process inks, and athletic inks have an even higher concentration of pigment than multi-purpose ink. With each type of ink the manufacturer has altered the percentage of pigment to PVC to have the ink closer to press-ready when using the ink for the application designated on the can, technical sheet and sales literature – process, multi-purpose or athletic printing.

Just as you stirred the clear or soft-hand clear in the can, stir the process, multi-purpose and athletic inks each separately. You will notice each, for a given manufacturer, is successively more difficult to stir and falls off the squeegee more slowly. Each has essentially the same ingredients, but in different percentages. The printing characteristics and color concentration of each changes by predetermined increments.

In many, if not most, cases you will find that the predetermined incremental change exceeds your requirements for the job to be printed. A simple test will prove very revealing. Print a high color, like blue or red, with ink taken directly from the can.

Now take the same ink and mix the ink with an equal amount of clear in a margarine or cottage cheese container. Print this mix that has only 50 percent pigmented ink, and you will find for most manufacturers and types of ink that there has been no change in color. The 50/50 mix would meet your color requirements for the job.

Obviously, the 50/50 mix shares the easier printing characteristics of 100 percent clear with the 100 percent pigmented ink, and would be half way in between. The 50/50 mix is also less expensive, because clear costs less than pigmented ink. So mixing offers the opportunity to reduce ink costs.

Now run the test again, this time with two parts of clear and one part pigmented ink. Pigmented ink has dropped to only 33 percent of the total, printing characteristics of the mix have improved again, and for many manufacturers and types of ink, the color is still acceptable.

***“People will mix in liberal amounts of reducer until, by eye or by feel, the ink has the ‘right’ consistency. This ‘glug-glug’ method is wrong.”***

Notice also that the percentage of change is successively less as 100 percent was mixed, or based back, to 50 percent and then 33 percent. A third part of clear yields a 3:1 mix, or 25 percent, pigmented.

The first part of clear based the ink back by 50 percent, the second part by 17 percent, and the third part of clear to one part pigmented by 8 percent (33 percent minus 25 percent = 8 percent). The color adjustments are getting finer, and the printing even easier.

You must test each manufacturer’s ink, type of ink, and color separately because one ink might print lighter at a 50 percent mix while another ink does not show color change until based back to only 25 percent of the mix.

Inks should never be mixed in their shipping containers, because there will not be sufficient room to add the requisite clear. More importantly, you will lose the ability to customize the mix to a more concentrated percentage for a

different application.

The percentage, or ratio, like 3:1, should be marked on the job record and on the margarine container using masking tape. This will indicate the ink left over after the job has been printed. Many of these containers have lids to keep the ink clean between jobs.

## PLASTICIZER

The additives and plasticizer that the manufacturer mix with PVC and pigment are a principal difference between the ink of one company vs. another company. Plasticizer is a main ingredient. The most representative form of plasticizer is sold as reducer.

Reducer, when added in very small quantities, has the effect of making the ink less adhesive. The tackiness of the ink is reduced, and therefore the name. The printing characteristics of ink are greatly aided by the addition of reducer, except when printing four-color process.

Do not use reducer when printing four-color process. Each ink dot formed by the size of the hole between the screen filaments and emulsion will collapse when the wall structure of the screen mesh is lifted off the garment. Ink dots will run into each other causing a muddy image.

If you are not using a reducer when printing line art, start now, but comply strictly with the manufacturer’s recommendations.

Reducer looks clear like water in the can, but pours and has the feel of light oil. Be sure to get a technical sheet prepared by the ink manufacturer, and read it! (The manufacturer will prescribe (i.e. command you comply, not just recommend) that, at most, a modest amount of reducer be added, such as one to two percent. If you over apply reducer, the ink may never fuse to the garment regardless of how hot your dryer is, how slow you run the belt speed, or the number of times you run the garment through the dryer.

So remember, be careful when adding reducer. There is one exception. One ink company has a curable reducer. It is actually a blend of reducer with PVC and other additives in proportions that always allow curing.

Manufacturers are not very vocal about using reducer because people do not read or observe the technical sheets. People will mix in liberal amounts of reducer until by eye or feel the ink has the “right” consistency. This “glug-glug” method, of course, is wrong.

Then when the ink is printed, a greasy feel to the image or back of the image develops. As you might expect, people always blame the other guy – the ink manufacturer – the guy who knows more about ink than the printer. People do not blame themselves for their indiscreet application of reducer.

Often people who know about reducer think reducer is the same as thinner, like they might thin paint. Some people try to thin ink with mineral spirits. That is another mistake.

Reducer is not thinner. Inks can be thinned by basing back with clear or soft-hand clear as discussed earlier, but only the adhesive quality of the ink is reduced with reducer.

Test the recommendation to use reducer when printing



four-color process. Print without reducer on contact. Notice the “snap” sound when lifting the screen off the garment. Look at the image.

You may find a rough ink deposit or even an orange-peel effect where the ink appears like craters. Now look at the bottom of the screen. You will find ink under the screen that was picked up out of the garment when the screen was raised.

Print a second time, but using an ink with reducer and a screen that has been cleaned on the bottom. There will be no snap sound, and there will be less ink deposited on the bottom of the screen. And if ink has been based back to its optimal potential as mentioned earlier, before the reducer was mixed in, there will be even less ink build up on the bottom of the screen.

Less pigment means less adhesive and ink build up, and the reducer further cuts the ink build up.

## USING RETENSIONED SCREENS

Printing off contact and using retensioned screens also contribute to reducing ink build-up under screens. However, retensioned screens have other possible effects that are more important.

All screen fabrics are dynamic, that is, they move. Some move more than others. A coarse mesh like 110 monofilament can be tensioned higher than 305, and therefore, is less subject to moving under the heavy hand of the printer.

Virgin fabrics may lose 25 percent of their tension within several hours and before even being printed on. Printing – that is forcefully deflecting the fabric downward over and over again with a squeegee – only reduces the tension further. That is why screens feel softer at the end of a job than at the beginning.

The best approach is to tension and pretension mesh four times over 24 hours before coating the screens. With each retensioning, the screen fabric will lose less tension and at a slower rate until used for printing.

If there is a stretching machine in the shop, always have mesh under tension, even if a new screen is not required for a week or two. The more time the mesh is under tension, the more opportunity there will be to raise the tension before gluing the mesh to the frame.

When screens are retensioned after printing, higher tensions can be achieved than before printing and tension loss will be even less and slower than before printing. Older mesh that has been used for numerous jobs and retensioned a number of times is dramatically better than virgin mesh.

Rigid frames, like wood, do not provide for the benefits of retensioning and reclaiming may cause the wood to warp. Warped screens can not be registered for butt-registered artwork and may leave uneven deposits of ink.

That inventory of old wooden screens on the shelf that the screen printer thinks is such an asset to the business may actually be a liability. If the business is not going to invest in retensionable frames, the interests of the business might be better served by replacing all that old mesh with new mesh or new wooden frames, preferably coated with polyurethane to water proof.

Common printing problems that often are attributable to under-tensioned screens are:

- difficulty registering screens,
- ink build up under screens
- feathered printed images
- prints out of registration
- uneven ink deposits, and more.

The printer, sensing the care required, tends to slow down, resulting in lower production rates and the likely financial consequences.

Production will drop further each time printing stops to repair a pin hole created by stressing an emulsion on an under-tensioned screen. Under-tensioned screens can create wave action in front of a squeegee, severely torquing the emulsion and creating pin holes, rather than using the emulsion as intended to determine where ink will be deposited.

Those old screens on the shelf with the old images are more subject to pin hole and production loss problems than new screens. The time saved by not making the screens is often lost in slower production rates, lower quality work and rejects.

If you have never tried a retensionable screen, buy one already stretched. After 500 prints, retension the screen before coating with another emulsion. Capillary films can be applied in seconds making quick work of screen making.

The differences between old, wooden frames that have been sitting on the shelf and a fabric tensioned close to its potential will be immediately obvious. You’ll wonder why you did not recognize the importance of screen tension sooner.

## CONTROLLING SQUEEGEE ANGLE AND SPEED

If insufficient ink is being deposited on a garment, the most common reaction of printers is to press harder on the squeegee and to print the same image twice. Try lowering the angle between the squeegee and the fabric to 45 degrees or slightly less and printing only one time.

This will cut the work in half, doubling productivity, and avoid registration problems from under-tensioned screens.

Increased squeegee pressure should not be used. Here is why. The ink has to go either in the direction of the squeegee or downward through the openings, or image area, of the screen. At 60 degrees, more ink will be carried on the blade of the squeegee as opposed to 30 degrees, where the ink is being deflected downward resulting in a heavier ink deposit.

The ink is being pushed by the hydraulic pressure out in front of the squeegee blade and then sheared off on top of the screen by the squeegee blade. Notice that squeegee pressure is not part of how ink is deposited.

The role of the squeegee pressure is to make at least momentary contact between the screen fabric and

garment. In this way, the ink, with its adhesive quality, will make contact with the garment, drawing the ink out of the image area as the ink is sheared from the mass of ink above the image. Any squeegee pressure beyond this point of contact may smash the ink deposit, force the screen fabric to move and abuse the emulsion.

The ideal angle between the squeegee and fabric to start is 45 degrees. The angle can then be adjusted to a greater angle to deposit less ink or lower than 45 degrees for more ink.

Squeegee speed also affects the amount of ink deposit. Pulling the squeegee faster results in less ink deposited because more force is created in the direction of the squeegee than downward onto the garment. Lowering the squeegee angle rather than slowing the squeegee speed will avoid a reduction loss. The advantages of printing with an automatic rather than manual machine is the consistency of squeegee angle and speed. When printing with a manual machine, the person pulling the squeegee should be attempting to mimic an automatic press.

Sometimes printers bear down hard at first on the squeegee and then ease up on the pressure as they move across the screen. Or they may start with light pressure and increase the pressure while pulling the squeegee.

Others will print with light pressure, at first, heavy pressure in the middle of the screen and then light pressure at the end in a "U" pattern.

All of these inconsistent patterns of squeegee angle and pressure deviate from the consistency of an automatic and should be avoided. Similarly, more pressure on one end of the squeegee may cause inconsistent results.

## CONCLUSION

The next time you attend a trade show, look carefully at the automatic printing machines. Notice the ink is watery looking; it certainly does not look like what you find in the containers you buy.

Feel the tension on the screens. There will be little or no ink buildup under the screens. The printed images will be better quality and softer to the touch. Production speeds will be higher.

All of these benefits can be achieved by taking the time to learn about mixing inks, about the impact of screen tension, and about the role of squeegee angle and speed. These are the most lucrative areas for improvement in most shops.

When you command these three areas, your quality and reputation for quality will be enhanced, production rates will be higher, and profits will be under better control.

# News from Printex

Successful Installation of Sroque Machine at Kay & Emms Faisalabad.



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