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Printex Monthly News Bulletin

January 2015 | Issue 24

TIPS OF THE MONTH

A wise man can learn more from a foolish question than a fool can learn from a wise answer.

~ Bruce Lee

Don't wait for extraordinary opportunities. Seize common occasions and make them great. Weak men wait for opportunities; strong men make them.

~ Orison Swett Marden

WE PROMISE
ACCORDING TO OUR
HOPEs, AND
PERFORM
ACCORDING TO OUR
FEARS.

~ Francois duc de la Rochefoucauld



Life is like riding a bicycle, to keep your balance, you must keep moving.

~ Albert Einstein

We must remember that one determined person can make a significant difference, and that a small group of determined people can change the course of history.

~ Sonia Johnson

Guide To Choosing And Caring For Your SQUEEGEES



It is important to fully understand how squeegees work in screen printing tee shirts or other textiles in order to achieve the best print quality with ease.

Choosing the correct squeegee durometer, size and shape is most likely one of the single most overlooked details for beginning screen printers. The durometer measurement is not the only thing to consider when choosing a squeegee for any particular print job. And proper maintenance and care will also affect the squeegees ability to do its job right. The following is geared more toward textile screen printing but may also be relevant to other printing applications as well.

1- The first factor to consider when choosing the squeegee is the durometer. This is simply a measurement of hardness. These measurements are represented by two digit numbers. A 60 durometer squeegee is much softer than a 95 durometer. The lower the durometer is the softer the squeegee is and more ink will be printed. The higher the durometer is the harder the squeegee is and less ink will be printed. Knowing this when choosing the squeegee will help you optimize print results. Now it may also be helpful to know that rougher substrates to be printed on will require a softer squeegee in general. And contrastingly smoother substrates will need a harder squeegee for best performance. It is also important to note that harder squeegee durometers will be the most resistant to chemicals, inks and other solvents.

2- The second thing you need to look at is the squeegee shape. For the most part a rectangular, cut edge squeegee will suffice for many screen printing applications on flat surfaces of all kinds. When printing bottles or other cylindrical items a "V" shaped squeegee is used in a majority of the printing. Yet another type of squeegee shape is called "ball nose" or rounded. This shape will tend to leave very heavy deposits of ink with

less resolution. That means it will print more ink but the edges of the print areas will be less sharp. There are what is known as a standard squeegee and a dual durometer. The dual durometer squeegee combines the values of two different durometer squeegees into one. There are also triple durometer squeegees.

3- The last property to think about when picking your squeegee for printing is the size or length. This is another point many people fail to recognize as an important issue. But the bigger the squeegee the higher the friction is between the mesh and the squeegee blade. That can cause stencil drag which causes mesh distortion and thus registration problems. It will adversely affect not only the registration but the overall clarity of the print and even the consistency of the ink deposit.

Believe it or not the urethane materials squeegees are made of are absorbent. They can actually swell and deteriorate with prolonged contact to inks or other chemicals. That's why it is very important to clean squeegees immediately after printing and to allow them to "rest" between long print runs. When possible use a different squeegee daily for printing duties in your shop. Meaning use a particular one on Monday and then rotate to a different squeegee on Tuesday and so on for the entire week. Rotating squeegees will not only prolong their life span but it will also improve performance. It is also recommended that you keep the blade edge sharp when using rectangular squeegees for screen printing.

It can be daunting to think about all of the major and minor details one needs to consider when screen-printing tee shirts. If you can remember to take the time to work smarter, then your print results will be not only better but much easier to achieve too.

DYE MIGRATION:

Screen Printing Polyesters & Poly Blends

Dye migration is also known as bleeding or dye sublimation. This is a process that occurs mostly between standard plastisol inks and synthetic fibers like polyester & also sometimes even by using the water base inks. It is most notable with white inks on shirt colors like red, navy, maroon and even dark greens. It may appear immediately when the shirts exit the oven, when they are left to sit overnight and even two weeks later. There are two common causes of dye migration.

The **real** cause of dye migration is simply the fact that the dyes in the polyester fabric sublimates or turns gaseous when heated to about 330 degrees Fahrenheit / 165 degree Celsius during the curing of the plastisol ink. Then the dye, in gaseous form, seeps into the ink layer thus tinting it the color of the shirt. Even if using water base ink and cure it about 330 degrees Fahrenheit / 165 degree Celsius, the same problem observe. This is inherent in the dyeing process of polyester and is unavoidable but not impossible to deal with. When screen printing polyester or polyester blend garments precautions must be taken to prevent this bleeding from happening. This is what we will call the "first" cause; over curing.

Over heating your printed polyester garments during curing is inadvisable. It is important to monitor the oven temperature to ensure consistent results. This includes flash curing. Be careful not to overheat the shirt when flash curing on press. Cure all of your polyester garments under 320 degrees Fahrenheit / 160 degrees Celsius. It is also possible to use a catalyst like Nylobond / FO 666 to reduce curing temperatures of plastisol inks. Lower curing temperatures are the best defense against color bleed. Thicker layers of ink will inhibit dye migration but it will also require longer heating times and temperatures.

It is best to use an ink specifically designed to be low bleed or one that is made for polyester materials. White ink is the absolute worst for bleeding problems. But don't be surprised to see other inks disolor after being printed on navy or black. You could also use an under base to prevent bleeding and some ink manufacturers offer under base inks specifically for this application like YC DYE BLOCKER from FUJIFILM SERICOL. The Sericol Plastisol Inks (ONI / YC Series) are mostly curable about 160 degrees Celsius so if you can monitor oven temperature carefully than these Inks will work wonderfully.

The **"second"** cause is basically the same problem prompted by different factors. The simple fact of the matter is that sometimes the dyeing process for the polyester garments, which is a sublimated one, is of substandard quality and the dye will tend to migrate easily from the fabric into

the ink layer. This is a problem that can only be addressed at the factory where the fabric is being dyed. Good luck. Using higher quality products may help to avoid this factor.

Another part of the second cause is re-dyed shirts. This is also something that starts at the factory. Let's say a dyer makes more yellow shirts one spring season for some reason and then they experience larger orders for shirts like black or navy and even maroon. Can you guess what they do? That's right, a re-dye job. Any re-dyed garments will have a tendency for the dyes to bleed into the ink layer. This goes for 100% cotton shirts as well as polyester or polyester blends. Printing white ink on a 100% cotton tee shirt that has been re-dyed may also result in color bleeding into the ink layer. Using a good quality, low bleed, high opacity white ink for all of your darker colored 100% cotton shirts is recommended.

It is important to ensure the quality of your polyester garments before printing them. And there is a simple way of doing that in addition to buying a well known name brand garment. Take a clean piece of white cotton tee shirt fabric and tightly wrap it around your index finger. Then rub an area of the polyester fabric a few times with your finger. If there is a very slight color transfer, it should be alright. If there is a very significant color transfer, then I would be very cautious about printing those shirts. This test may also be repeated with the cotton fabric damp if you are unable to get readable results dry.

Finally, there are high quality garments like Under Armour®, Addidas, NIKE that just have a bad problem with standard plastisol inks and bleeding. They also tend to crack or flake with standard plastisol inks as well. If you are approached with such a brand's print job, be wary and contact your ink manufacturer for the correct ink to use. It is always a good idea to consult your ink supplier to ensure proper ink usages in your print shop.

Another Best Solution is to Use the Water Base Low temperature Curing Inks, or can use the water base ink with addition of low temperature crosslinking agents like CRESACAT RT / CRESACAT PU. You can also use the Dye Blocker CRESABLOCK PES as underbase to further ensure dye blocking. Because as discussed earlier for 1st Reason of dye migration, curing temperature should be ensured so by using CRESACAT RT / CRESACAT PU you can cure the ink at 130 degrees Celsius or below this temperature by increasing the quantity of CRESACAT RT/ CRESACAT PU. And for second reason of substandard dyes / improper dyeing / re-dyeing , its better to use underbase and on top water base ink with such low temperature cross linking agents.

THE **5** MOST **PROMINENT** MANAGEMENT **TRENDS** OF THE

21st CENTURY

By IBTimes Staff Reporter

As part of its 10-year birthday celebrations, Working Knowledge - the Harvard Business School publication which provides a first glimpse into cutting-edge research from Harvard faculty - asked several influential management thinkers and faculty, including the new Dean, Nitin Nohria to shed some light on the most significant ideas and developments that have impacted business management in the first decade of the 21st century and also the most productive management research areas in the decade to follow.

Based on responses from the reputed faculty researchers, we take a look at five areas or trends which are emerging as the key influencers of business and management in the 21st century and are also likely to spawn a good share of research in the domain.

Globalization

The melting of barriers among nations and their increasing interconnectedness, accelerated by technology, has led to a change in the world order that has had a profound impact on global business. The emergence of nations such as India and China has replaced the era of unquestioned dominance of the Western countries or any one particular region, paving the way for a flattened business arena where developments in one part of the other are certain to have a spiraling impact. Perhaps the best evidence of this is the recent financial crisis.

A recent 335-page study by the AACSB, the leading accreditation agency for business schools around the world, highlights the implications of this and asserts that rising expectations from business and society for graduates with global competencies, coupled with the increasing complexity and global connectedness of higher education, command the attention of business schools around the world.

Technology

If the current wave of globalization has been the driving force behind the most far-reaching and powerful changes in business, then information technology has indisputably been the facilitator. Drawing attention to the fact that four out of the top five companies in Businessweek's annual list of most innovative companies are technology-driven businesses, Professor Teresa Amabile writes in *Working Knowledge*, Customers are courted and supply chains are managed via websites, social media, and email; marketing, manufacturing, and distribution processes are managed by sophisticated real-time information systems; colleagues working 12 time zones apart can see and hear each other as they work at their desks-or in airport lounges on opposite sides of the planet.

Sustainability and Corporate Social Responsibility

For business to be sustainable, and even profitable, our planet has to be sustainable - this realization has hit businesses perhaps the hardest in recent times. HBS Dean Nitin Nohria feels that in the coming decade, we are likely to see a lot of focus directed towards applying management principles to solutions of complex social issues such as environmental sustainability, energy security, access to healthcare etc. This will also underline the need for increased interdisciplinary interaction and influence on business management.

One evidence of this growing engagement with issues of society and sustainability is the increase in number of companies who have intensified their CSR focus and the innovative ways in which they have engaged themselves, points out professor of marketing, Michael Norton. Shifting steadily from corporate philanthropy to more direct and effective engagement, companies have devised new models of extending a social footprint. Drawing attention to the Pepsi Refresh project, Norton has highlighted how the company encouraged users to submit projects with social impact-from cleaning up a river to saving animals-and allowed other users to vote on which projects Pepsi should fund.

The Study of Psychology

Speaking of interdisciplinary influences on business, the study of human psychology - probing into cognition, motivation, behavior and performance - has become a key pillar of organizational management. From employee management to customer satisfaction and social engagement, satisfaction of business objectives requires effective analysis of both individual and institutional psychology. A good amount of research is therefore likely to be focused on how psychological theory and research can be integrated into business academics and management practice; Professor Amabile feels that with more evolved tools and access to ever-growing information databases, managers will have the power to substantially improve both the practice of business and the welfare of society.

Business Ecosystems

Professor Carlyss Y. Baldwin feels that one of the most notable trends in management has been the rise of business ecosystems - defined as groups of firms which together provide complex products and related services to meet end-to-end requirements of users across the value chain. The integration between media, technology and telecommunication firms would be an apt contemporary example.

This has important implications for management because innovation in business ecosystems has a character distinct from traditional, vertically integrated firms. Every organization in the ecosystem has to be aware of the bigger picture. As Professor Baldwin tells *Working Knowledge*, Innovation in ecosystems requires collective action to both invent and appraise, efficient, cross-organization knowledge flows, modular architectures, and good stewardship of legacy systems. It rests on multiple, complementary platforms.

News from Printex

Sroque Technician Mr. Bruno Fernandes (One of the most Experienced Technician from Sroque) is visiting Pakistan during the last week of January for Installation of Sroque You Model at Kay & Emms Faisalabad.

Printex Website will be upgraded with a new vision in this Month of January.

Mr. Abid Ali Abid , a well known experienced Printer has joined our Printing House PRINT-WELL .



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