DYE SUBLIMATION PRINTER APPLICATIONS: FABRIC AND APPAREL
AN OVERVIEW OF THE USE OF DYE SUB FOR FABRIC AND APPAREL APPLICATIONS

The buzz about the benefits of dye-sublimation goes far beyond simply producing T-shirts and basic garments.

Throughout the display market the potential for printing onto fabrics for soft signs, flags and banners is increasing in popularity. As long as the material is polyester or polyester coated, then this versatile process can be used on a wealth of items that goes far beyond the decoration of apparel and interior décor.

The dye sublimation process explained

Dye-sublimation needs a polyester-based material for the process to realise its capabilities, but there is no real restriction on the fabric once this criterion is met. In fact, in conjunction with a heat press or calender, a comprehensive selection of textiles can be printed, from fine and loose weave display products through to heavyweight materials such as carpets.

The same principles can also be applied to polyester coatings so that non-textile promotional and gift items can be generated using the same printer. This makes our SureColor SC-F6000 and SC-F7100 printers highly versatile because they can be used to print images to dye sub transfer to metals, wood and plastics, in addition to a multitude of fabric products.

As the image fuses into the surface of the substrate, it is hard-wearing and, because of this, sublimated apparel is highly desirable in environments where garments have a tough life, such as with sports and swimwear, or for office furnishings, particularly with polyesters that are able to emulate natural fibres in appearance and feel.

The appeal of dye-sublimation has been enhanced greatly by the advances made in the development of polyester fibres and fabrics. Gone are the days of materials which have a typical polyester look and feel; it is now possible to benefit from fabrics that have a high quality appearance yet still have the benefits of the ability to carry the ink, wash after wash, and are easy to maintain. As a result, the potential for printing apparel has extended into the ability to produce quality fashion garments and accessories as well as work and sportswear.

The versatility of dye sublimation

But the question has always remained – is dye sublimation a costly and complicated production method? Epson thinks not and developed the SureColor SC-F6000 and SC-F7100 dye-sublimation printers to streamline the printing of multiple quality products using the dye sub process. A single SureColor printer can be used to decorate clothes, caps, bags and furnishings – and even shoes – yet it can also turn its capabilities to the generation of soft signs, banners, front-lit and back-lit displays, flags, and interior décor, plus much more. It can also be used to decorate mugs, gifts, ceramics and other items which, traditionally, aren't always suited to alternative inkjet technologies.

Turning dye sub into a viable business model with the SureColor SC-S Series

Epson has fine-tuned the dye sublimation process with the SureColor SC-F6000 and SC-F7100 printers so that it simplifies what was once a relatively complicated procedure, making it a straightforward operation that guarantees good results consistently. It is the combination of technology and practical application that now brings this method of decoration within the reach of anyone who wants to produce value-added products in return for a very modest investment.
The benefits of the Epson printhead

Applying our expertise of manufacturing Micro Piezo printheads and UltraChrome ink, we developed dye sublimation printers that deliver high-quality results at realistic investment levels. They remove the hit-and-miss element of colour management, droplet placement and ink densities, guaranteeing perfectly sublimated results on all compatible materials. Traditional printing technology such as screen printing, have issues with the registration of the plates and the difficulty in ensuring that the C, M, Y and K parts of that image all match on the finished product, often results in a compromise in print quality. Our dye sublimation technology, because it is based on a digital printing process, can deliver photographic image quality without using plates, which avoids any worries about wastage or poor quality output because the plates weren’t aligned.

Alongside this, the appeal of dye-sublimation has grown alongside the demand for more environmentally-friendly applications using aqueous-based ink technology and polyester-based materials that can be recycled.

All in all, the benefits of dye-sublimation are many, as users can rely on easy-to-use high quality production systems that are cost-effective and dependable, and there is a good range of textiles available on today’s market. The process holds vast untapped potential for everyone from the printer to their customer to the ultimate consumer of the finished item alike. Before now, print devices were deemed to be complicated and difficult to work with. Epson has changed the face of printing to fabric, removing the mystery and guaranteeing a practical and cost-effective process for everyone.

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