



Going green with Wilflex

Ian Roberts of PolyOne, manufacturers of Wilflex screen printing inks, explains how the company has responded to global market trends with the development of increasingly environmentally friendly ink products...



Wilflex QuantumOne is a non-PVC and non-phthalate ink range that is Pantone approved and replicates the printing characteristics and screen stability of a standard plastisol ink.

The global market for printing inks has over the last few years been changing, with new requests from major apparel manufacturers being placed at the door of textile ink manufacturers. The main focus for these specifiers has been on phthalates.

Phthalates have been used as the softening agent for PVC in plastisol printing inks since Wilflex first manufactured plastisols back in the 1960s. Phthalates are also used in a whole host of other PVC consumer products available in today's market place. However, as has been well documented, some major apparel manufacturers requested that their plastisol ink prints were produced with alternative softening agents to phthalates.

Step one: phthalate-free

PolyOne responded to this request: its team of

highly dedicated chemists at its manufacturing site in Kennesaw USA worked to develop an ink range to fulfil the apparel manufacturers' requirements – namely inks that are non-phthalate containing, easy to use and print, possessing the screen stability of conventional plastisol inks, and Pantone approved.

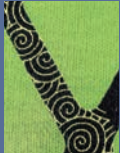
"This new technology was far from simple to develop! The R&D team were unfamiliar with some of the raw materials that were required by the new ink formulations. Compatibility and stability, along with build-up resistant print performance, was essential. However, after many hours of testing and evaluation the Epic Ink system using non-phthalate plasticizers was finally formulated," comments Ian Roberts, technical manager, PolyOne Specialty Inks and Polymer Systems.

Ian points out that to many printers and speci-

fiers it will come as something of a surprise to learn that Wilflex has been successfully supplying these inks to the textile market for almost ten years! "And with each passing year the sales of Epic Inks in the market have continued to grow," he adds.

Globally, there has been a recent sharp rise in the requirement for non-phthalate prints by apparel manufacturers, and Wilflex is predicting that 2008 will see the brand's largest annual sales growth to date. "We are predicting that volumes will more than double the previous year's requirement," reports Ian.

According to Ian, one of the reasons the Epic system is experiencing such a rapid growth in demand is its ease of use and the fact that it prints and acts like a conventional plastisol ink. As well as the Colour Mixing System, Wilflex offers speciality inks that enhance the range,



and an on-going program to further expand the product offering.

Step two: removing PVC

Subsequent to the launch of Epic, some major apparel manufacturers conducted further reviews of their policy regarding non-phthalate prints. These reviews led to a request for plastisol inks that not only contained alternative softening agents to phthalates, but also required the inks to be free of PVC. With this now a requirement in certain areas of the market, the Wilflex team of chemists returned to its work benches to develop a suitable product range.

“The R&D Department combined its skills and knowledge with cutting edge technology to develop Wilflex QuantumOne, a non-PVC and non-phthalate ink range. Crucially, this acrylic-based ink system once again replicates the printing characteristics and screen stability of a standard plastisol ink range,” Ian Roberts explains.

Most printers will be well aware that there are a couple of crucial requirements of any new ink range: firstly, it must be Pantone approved; secondly, it must be possible to print the inks wet-on-wet without build up, so that high production rates can be maintained.

With these requirements in mind, both the Wilflex Epic and QuantumOne Colour Systems are based on Wilflex’s MX mixing system. Like


the MX System, the 15 ready-mixed Epic and QuantumOne colours produce accurate simulations to the coated and uncoated Pantone Color Guide shades. “This allows colour matching to be quickly and easily achieved, and the resultant colours remain bright clean and vibrant,” Ian points out.

Wilflex developed the Genesis range of inks to facilitate wet-on-wet printing over 12 years ago. “The Genesis technology brought to the textile market build-up resistant printing, allowing printers to avoid the many hours of lost production time throughout a year caused by having to clean ink build up from under their screens on press,” Ian explains. “Taking this knowledge forward, it was essential that all new ink ranges brought to market also exhibited the wet-on-wet technology pioneered by the Genesis system: both Epic and QuantumOne have been developed and launched to do just that, and allow printers to continue achieving the high production rates that are essential in today’s highly competitive market place,” he adds.

Step three: water-based options

Wilflex’s response to global market trends does not end with the development of the Epic and QuantumOne ink ranges, however. Oasis is the brand’s complete line of water-based inks,

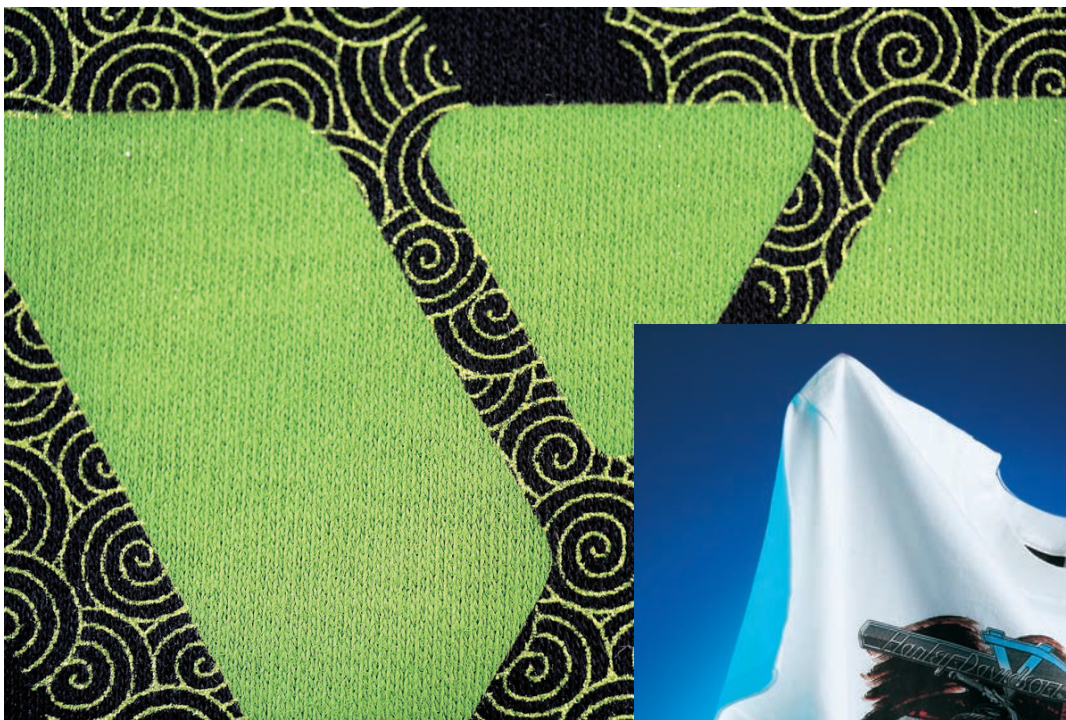
which range from non-formaldehyde discharge inks that allow discharge prints to be produced without the requirement of placing ‘wash before wear’ labelling on the garment, to contemporary fashion-driven special effects. “Wilflex Oasis was developed to bring together the latest technology in products that do not contain phthalates, PVC or AEPOs, and meet the Oeko Tex 100 Standard,” Ian confirms.

Wilflex backs its products with what it believes is the best world-wide distribution network and technical support team in the textile business. “We are so dedicated to the textile market that we are continuing to grow our team with exciting new members joining us. In the present environment where there is a growing requirement for eco-inks, Wilflex provides a full range of patiently developed ink products – Epic, QuantumOne and Oasis – which we simply call, ‘solutions’: solutions that help you deliver the results your customers expect, without compromising on quality, performance or value. So when you require a solution to your printing needs we have the answers to all your questions. We will discuss your options, and help you select the right products. Going ‘green’ is easy when you go Wilflex!” he concludes. 

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The Oasis range of water-based textile inks brings together the latest technology in products that do not contain phthalates, PVC or AEPOs, and meet the Oeko Tex 100 standard. The Oasis line up ranges from non-formaldehyde discharge inks to fashion-driven special effects ink products.



Wilflex has been manufacturing its Epic non-phthalate textile inks range for nearly a decade. The brand is predicting that Epic’s year-on-year sales will double in 2008, following a recent sharp rise in the global demand for non-phthalate printing inks from apparel manufacturers.