Insert: Merck's RGB printing technique

/ PRINT /

Hot Off the Press: RGB Printing Perfection

ARE YOU READY FOR A REVOLUTION IN PRINTING TECHNOLOGY? AT LONG LAST – IT'S HERE. WORKING WITH TRUSTED PARTNER LORENZ BOEGLI OF THE ATELIER FÜR SIEBDRUCK PRINTING STUDIO, MERCK HAS DEVELOPED A PATENTED NEW TECHNIQUE THAT COULD CHANGE THE FACE OF PRINTING – PRINTING ADDITIVE IN RGB. EFFEKTE MAGAZINE CAUGHT UP WITH MERCK'S VERY OWN PETER CLAUTER FOR AN EXPERT LOOK AT THIS FANTASTIC NEW TECHNOLOGY.

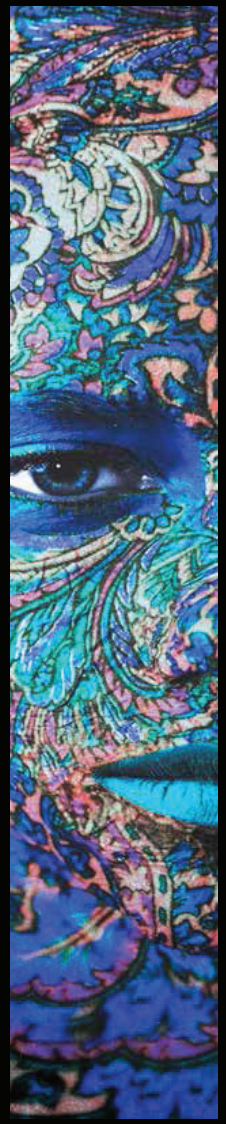
Effekte: What gave you the idea to come up with a new printing technique for RGB?
Clauter: The idea was born out of a brainstorming session between me, Lorenz Boegli and Marc Weingart. We got together to discuss options for creating exciting new effects in print. Mr. Boegli really enjoys working with black substrates, so it seemed a natural fit to find ways of creating RGB prints on black paper. That's when the creative wheels were first set in motion.

Effekte: How is RGB printing different from CMYK? What are some of the benefits of RGB printing?
Clauter: The RGB color model is based on three primary colors – red, green and blue – which are blended together to produce a broad spectrum of hues, where full intensity of each color component gives a white shade against a dark background. This is quite the opposite of the CMYK model, in which the components – cyan, magenta, yellow and black (key) – are layered (generally on a white or light background) to produce a color band. A black-on-white print is achieved when each CMYK component is printed at full intensity. The benefits of RGB printing include more color options and greater flexibility in terms

of graphic conversion. The CMYK color range is a lot smaller than RGB, so you have fewer options in terms of hues and saturations. As a result, going from the RGB spectrum to the smaller CMYK band automatically means you lose colors. This is especially noticeable when digital images are converted. Also, although some say you can achieve up to 60% of the L*a*b* color space with CMYK, others speculate that this could actually be increased to 80% with RGB in the future.

Effekte: What line of pigments would you recommend for this new technique?
Clauter: A number of Merck pigments work well for this printing technique. Although the Pyrisma® pigments deliver the most dramatic results, we can also recommend products from the Iriodin® Ultra line, or the F-Types.

Effekte: Is any special printing equipment required? Can this type of printing be combined with other techniques?
Clauter: The secret to any printing technique lies in using the right pigments. It should be possible to produce prints of any kind with existing printing technology. These days I'd recommend screen or gravure printing, depending



on the project of course. And, yes, this new RGB technique can most certainly be combined with other printing options, even CMYK prints. A fine example of this would be a picture of a new car, where the image itself is printed in CMYK and the painted parts of the car body are printed in RGB.

Effekte: How long did it take to develop this new style of RGB printing? When can we expect it on the market?
Clauter: This technique has been a year in the making and we expect it to be ready for the market at the beginning of the second quarter of 2015. The first demo tool will be available in time for ECS 2015. It was produced in collaboration with our partners at DS-N, Fedrigoni, MOOG, Saueressig, Siegwerk and Vrijdag. The tools will be in the form of a poster created with sheet-fed gravure technology. We're really excited about presenting the results in this way.

RGB printing represents a whole new ball game. It offers new dimensions in effect printing and a new way to differentiate your prints from those of the competition. So join the revolution: Contact Merck for more information on creating a new generation of RGB prints.