printcolor
high perfomance inks

# Screen printing inks according to ISO 2846-4 Standard


**The discussions regarding the scope and possibilities of standardisation in today's screen printing technology are contradictive. Here you will read how Printcolor can help you to add perfection to your trichromatic prints.**

On one side there are art and craft focussed companies which believe that a standardisation is impossible because of the multiple parameters and variables in the printing process. Each job is treated individually with regard to the chosen technical route.


On the other side we find a lot of industrial printers which have stabilised their processes on a very high level during the years. They reproducibly manufacture high quality screen printing products following clearly defined standards and within tight quality tolerances. Most of these technology focussed companies drive and control the entire work flow – including creation or at least correction of the digital picture data. This is a basic requirement for any standardisation process and a pre requisite for optimal results. With supplied offset positives we can not produce high end screen prints.

Although consequent use of color management and modern measuring techniques even these top class companies have problems with precise color results in their end products sometimes. The color tune does not match the proof or the achievable color gamut is far behind the expectations. Then often art and magic starts. Manipulations of color densities down to the complete loss of grey balance, mixing prime colors and re-adjusting the eventually already perfect set up of the press are leading to a waste of time and money. In the worst case the important trust in standardisation benefits is getting under threat.

If brand colors can not be matched or a critical grey balance is not achievable there might be a simple reason – you are not using standardised trichromatic screen inks. The term "not standardised" relates in this context to some optical characteristics as color space, density and

transparency of the inks. In the wider sense also the repeatability of these functions from one ink range to another and even from one manufactured batch of inks to the next plays an important role. If these standardisation elements are missing in the process chain dissatisfaction with the final results are pre-programmed.


INTERNATIONAL STANDARD

ISO 2846-4

Graphic technology — Colour and transparency of printing ink sets for four-colour-printing —

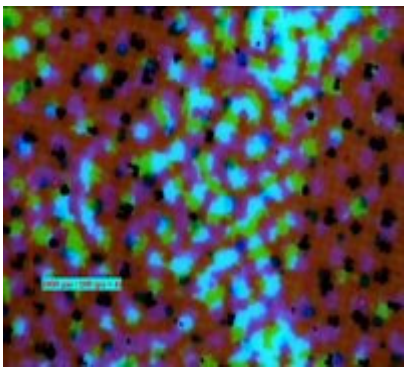
Part 4: Screen printing

ISO

On December, 15th 2000 first time ever a norm was published under reference ISO 2846 part 4 which regulated specifically the colors and transparency of trichromatic screen printing inks. This norm was developed within the ambitious project to make way for a universal color standard covering all digital and analogue printing technologies.

Already in the first year after publication of the screen norm Printcolor has taken on the challenges and opportunities deriving from the project. Up to this point Printcolor has - like the rest of the world - supplied trichromatic inks matching to the more or less defined “Europaskala DIN 16539”.

Next to this “Europaskala” there were a lot of other specifications out of any norm as for example “Kodakskala”, the “EuroStandard” (a trade mark of System Brunner) and the often cited “Euroskala” which actually never existed. Next to this multiple of unspecific sets independent institutes discovered very early that under the label DIN 16539 supplied inks showed dramatic variations between different manufacturers and therefore were not suitable for a standardisation process. Because of the variety of different scales and densities and even more suspect proof colors there was a universe of corresponding simulations for the screen printer who had to deal finally with all this variations.



Consequently Printcolor started in 2003 continuously to develope and sell the trichromatic colours in all ink ranges according to ISO 2846 Part 4. In parallel the growing acceptance of the ISO-specification for offset and also digital proofing colors worked in the same direction. In a tight co-operation with leading European screen printers Printcolor now had a look at the next step towards standardisation.

A large number of screen printer's were traditionally using both solvent based and uv-curing inks in parallel. At the time various mesh counts had to be used for the different ink systems. This different mesh counts obviously lead to different tonal ranges and variable color densities in the print process. Therefore the challenge for Printcolor was to re-formulate all existing solvent based trichromatic inks to be printable with a 150.31 PW PET mesh – the same specification as used for uv-curing inks. This major task has been completed early in 2005 although not only the pigmentation levels needed to be adjusted but also a complete new technology to enhance pigment dispersion and screen stability was implemented.

Today all Printcolor trichromatic screen printing inks – no matter if solvent based or uv-curing - can be printed using a 150.31 plain weave polyester mesh and very close colors, transparencies and densities will be achieved within the tight ISO 2846 Part 4 specification.

Due to this consequent adaptation of the ISO-standardisation parameters Printcolor enables screen printers for first time to fully comply with the international cross media standard with an optimal match between proof and final print product. Colour management in screen printing does not stop any more with the digital proof print but finds its final benefit in the improved reproducibility and standardisation of the 4-color screen printing.

**Many European screen printers are using already the opportunity to save costs and increase the quality of their trichromatic prints. Order samples of your preferred Printcolor trichromatic inks ISO 2846 Part 4 even today and send your order to our sales team info@printcolor.ch.**
**This can be the first step for even better results!**

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