

## Offset inks

# Revision of the ISO 2846-1 ink standard

The revised ISO 2846-1 will be published shortly and Fogra is adapting its offset ink certification programme to the new requirements

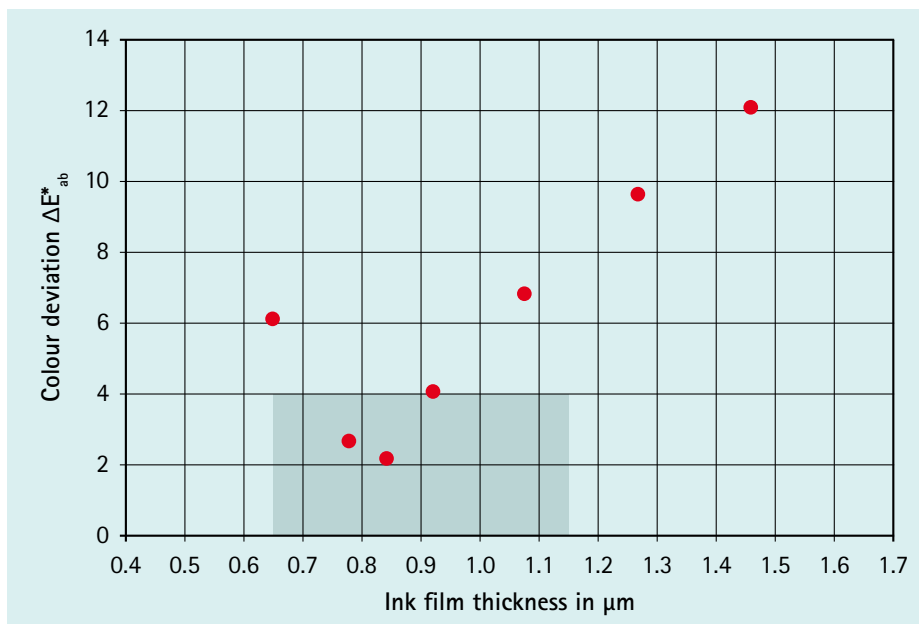
*An Extra by Jürgen Gemeinhardt and Ludwig Zins.*

Ink certification in accordance with the ISO 2846 series of standards is one of Fogra's most in demand services. ISO 2846-1 describes the requirements for offset inks, whilst ISO 2846-2 relates to newspaper inks for coldset printing. The criteria encompass solid colouring within a defined ink film thickness range and the transparency.

If an ink fulfils all the requirements, a manufacturer receives a certificate valid

for two years and a digital seal is made freely available on request. The latter can, for example, be reproduced on the tins of the ink in question. The ink is also listed as certified on the Fogra website ([www.fogra.org](http://www.fogra.org)) at *FograCert* → *Materials* → *Inks* → *Certification ISO 2846*.

For printers to work in accordance with ProcessStandard Offset and to be able to achieve the desired colour result, they must use inks that conform to the stand-



▲ Typical example for the colorimetric evaluation of a cyan sheet-fed offset ink. At least one measurement point for an ink that conforms to the standard must lie within the area bounded by the coloured line.

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ard. These can be specifically selected from the Fogra website, which displays a constantly updated list of certified materials.

ISO 2846-1 has recently been revised. Whilst the aim values and tolerance remain unaffected, the test substrates that shall be used have changed. APCO II/II, which is no longer being produced, will in future be replaced for colorimetric investigations by C2846. This will be sold by IGT of Amsterdam.

For the first time, the new edition of the standard specifies the gloss of the black substrate to be used for the transparency determination. This must lie between 75 % and 85 % (TAPPI). Furthermore, both the lower and the upper end of the ink film range to be used for the calculations are specified.


In future, measurement mode M1 is recommended for all colour measurements. Since optical brightener-free papers are used for the tests, no significant differences should be expected in comparison with the previous M0 mode.

The publication of the revised standard is expected in the next few weeks. Therefore, from 1st June 2017 Fogra will adopt the new requirements for its ink certification. The only aspect not taken as specified is the upper limit of the ink film range for the transparency determination. This measure of Fogra will generally allow more accurate and more reproducible results to be achieved.

◀ Certificate issued for an ink that passes the certification.

▼ Fogra website ([www.fogra.org](http://www.fogra.org)) search screen for certified inks.

**Test Certificate**  
Nr. 123456



for John Doe Corp.  
Any Street  
12345 Any City  
Wonderland

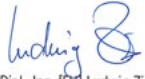
Inks 

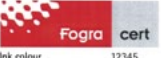
PSO ink	Cyan
PSO ink	Magenta
PSO ink	Yellow
PSO ink	Black

The inks specified above were tested in accordance with ISO 2846-1:2017 with respect to ink film thickness related colour coordinates and transparency on test prints.

Result The results are recorded in test report 123456 of 3 March 2017.  
The requirements of ISO 2846-1 were fulfilled in all aspects.

valid until March 2019

  
Dipl.-Ing. [FH] Ludwig Zins  
Munich, 3 March 2017

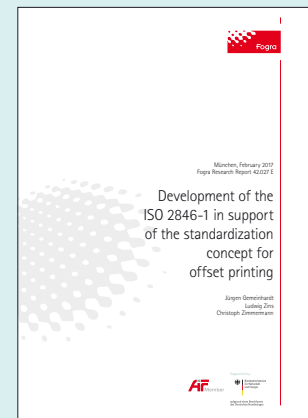
  
Ink colour 12345

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## Further information on this topic

In the recent years, a revision of ISO 2846-1 from the year 2006 took place, which will be published in 2017. The research undertaken in Fogra's project 42.027 served as the scientific basis for this.

Its goals were to quantify the influences of the various material-related factors on the colour values of specimen prints and to check the guidelines for determining transparency. A method should also be developed for the substrate agnostic characterization of ink gloss.



The Research Report 42.027 E is available for Fogra members as a free download from our website (after the login): [www.fogra.org](http://www.fogra.org) > Publications > Database.

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