

## **Guidelines for reproduction and supply of digital end-pages for direct engraving of gravure cylinders**

### **General instructions for the supply of digital data and print documents**

Please take note of the following guidelines for the supply of digital data and print material, which should be used for production in gravure work. Deviations from this can lead to unforeseeable errors in the production of the orders.

In terms of content, supplied data are taken over by us just as they are supplied by you. Therefore we recommend you to get all changes carried out by your repro supplier which relate to geometry, colour and tone staging as well as the text,.

Our production process is built up in a 4-colour CMYK mode. Thus all colour and tone staging are matched to the print colours in the supplied digital data and print documents, as well as the proofs supplied from these. A corresponding print result, within the tolerance customary to the industry, can only be attained if these preconditions are fulfilled.

### **Responsibility**

The printer guarantees a flawless production process on the basis of the supplied digital pre press material. The client is responsible for the right composition of the digital print documents.

Before pages are produced and documents are supplied by Prinovis, it is an essential requirement that test data are presented to Prinovis for checking purposes.

### **Other Items**

For additional information your contact person in sales or in production management or name will be happy to advise you or alternatively they will name an appropriate colleague in the relevant technical department for specific technical questions.

### **Content of the guidelines**

1. Description
  - Image Structure
  - Page Set-Up
  - Colour Management and proof
2. Supply of data and print documents
  - Data formats and delivery
  - File Designation / Name Convention
  - Proof Documents

## 1. Description

The specifications listed below apply for the design and the technical reproduction processing of the final pages. If not observed, proper processing of the print order cannot be guaranteed.

### 1.1. Image Structure

General:

- The reproduction colour space is CMYK, whereby the colours are processed in CMY and K is used only for key, modulation and contrast. (Data defined in RGB/Lab is not processed)
- Please avoid a strong UCR and GCR construction as this can lead to a different print result than the one in your proof.

Exceptions:

Images with fine patterns can result in moiré for instance with herringbone and glencheck patterns. Black types used in images for instance on packaging should also be avoided. Please make this in thin colour line work with an over proportional black overprint.

- Delicate structures / images with fine structures, as well as too high a sharpness of detail, can also result in moiré. Often this is not noticeable in the proofs.
- The maximum dot area is 340%. This is why we recommend to use 360% in the separation profile. We can put similar profiles at your disposal.
- The first shade to be visible is 5% per colour channel.
- Technical shades and fonts should be defined with at least 7% per colour channel.
- Over/underfilling:
  - Dark colours should be made with an overfill of 0.06 mm.
  - White out letters on dark backgrounds (4c) should be defined wider in the sub-colours.
  - Black frames are to be defined with 0.06 mm overlap.
- Previous agreement with the printer is necessary before special colours are used.

Texts:

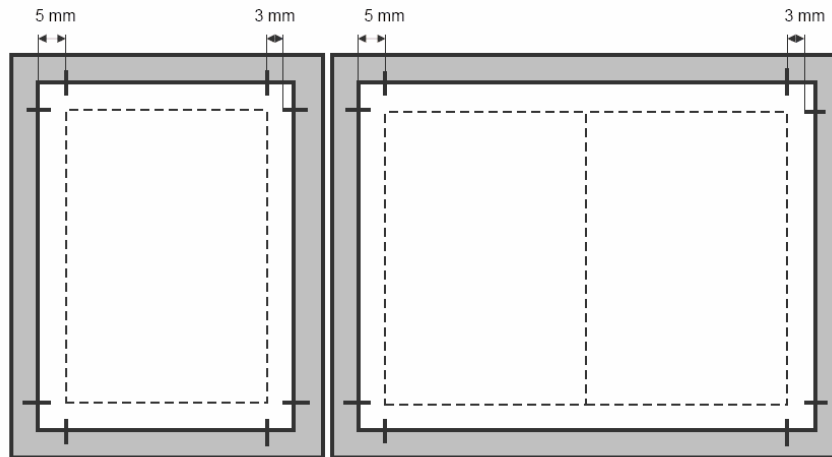
- Black text must be defined so that it overprints 100%.
- At pure black changes (text versions) there must be no colour constituents in the line work. I.e. coloured text, logos and background colours are to be incorporated into the CT.
- The selection of the type and size of the text font must be adapted to the gravure printing process, taking the print fit into account.
  - 0.2 for lines in single and multiple colour
  - For white out texts we recommend to keep at least 0,25 mm line width.
- Extremely thin type faces and serifs can result in a bad presentation of the texts in the print. If you choose to use very thin texts we are happy to test this with you to prepare for a possible print.

### Resolutions:

Continuous Tone (CT)	Images	120 l/cm (304.8 dpi)
Line Work (LW)	Line colour	360 l/cm (914,4 dpi) minimum
All in CT	All constituents calculated to form one encapsulated file	120 l/cm (304.8 dpi)
PDF	Images, vectors, text	Must conform to our current distiller setting

## 1.2. Page Set-Up

- Single and double pages can be processed mixed within one contracted order. In such cases, clear identification is absolutely necessary. (see point 2.2).
- Single pages are always to be formatted centered in job format
- All pages of one order including line work for text changes creating multiple versions, must have the same dimensions in net, gross and job format (see sample):
  - The net format is the trimmed size.
  - The net size + minimum 5mm allowance for trimming is equal to the total gross size.



- Trimming marks (length 5 mm and thickness 0.2 mm) are to be made in CMYK (100% each) 3 mm outside the trimmed format (net size).
- Spine progression compensation and allowance for binding scrub will be done by the printer.
- Important elements for the images: When layouting please take care that elements important for the images are placed minimum 6 mm away from the trimming edge. Double page split texts should be set apart in accordance with the binding chosen.
- When perfect binding we recommend you to implement a so called spine overlapping of ca. 5 mm.

### 1.3. Colour Management and Proof

Basis data for the final proof.

To ensure that the colours shown in the proof can be implemented in the printing process we have created colour profiles dependent on what paper is used. The correct implementation of the colour can only be achieved when using the calibrated proofers (Delta E $\leq$ 0,7) with our cleared current colour profile.

The delivered proof must be created from the delivered data and signed off by you as cleared for print. Only in this way can you be sure that the proof and the delivered data are identical.

Well in advance of starting up your repro work please do a visually and technically sustained coordination of the colour space and proof visualization. The goal is to check and to harmonize the used proof parameter and colour separation settings that you intend to deliver.

For this purpose, you will receive a test chart and test pages from us which we ask you to re-proof and return to the printer. After a visual and duly measured check we clear the data. Embedded ICC profiles will **not** be accepted.

The following control elements must be shown on the final proof:

- File identification
- Proofer type
- Name of parameter used/check sum
- Date and time the proof was produced
- Date and time of the last calibration
- Control strips: "Ugra/Fogra medium wedge CMYK-Tiff V2.0a" (in original size)

## 2. Delivery of Data and Print Documents

The client is responsible for supplying final cleared pages to the printer. For reasons of data security, open data formats (e.g. QuarkXPress, Illustrator, etc.) will not be processed. The data is converted at the printer to the standard engraving format TIFF IT/8.

### 2.1. Data Formats and delivery.

Please use a current, high-performance virus scanner when making up files, to avoid worms/viruses, etc.

Data format	PDF/X-4 2007 in Version 1.4	TIFF/IT P1 CT/LW or CT
<b>Resolution</b>	Colour and greyscale images 300 dpi. Black and white images 1.200 dpi	CT: 304,8 dpi LW: T3 or T6
<b>Image elements</b>	Loss free image compression Image elements in CMYK mode  Embedded ICC profiles are not permitted.	CMYK mode
<b>Data carrier</b>	CD Rom (ISO 9660) DVD	CD-Rom (ISO 9660) DVD
<b>Remarks</b>	<ul style="list-style-type: none"> <li>• No multiple page documents, we expect one PDF per page</li> <li>• Composite CMYK</li> <li>• Reference; Adobe Distiller</li> <li>• All Fonts are embedded</li> <li>• No MultipleMaster, pseudo italics and pseudo bold fonts, nor EPS DCS or copydot scan elements.</li> <li>• Files must not include Transfer Functions.</li> </ul> Please find our distiller settings under "downloads"	CT and LW files must have the same geometrical size.

Apart from the delivery on CD-Rom and DVD you can also deliver your data via FTP. We will give you the relevant user ID and Password upon request.

In case of a FTP data transfer we recommend an encrypted data transfer (for instance VPN). We are happy to assist you in setting up such a transfer mode. The details for doing this as well as creating a back up mode must be cleared prior to setting up the job.

On request, other data formats and storage media can be processed under certain circumstances.

However, for reasons of data security delivery by e-mail or downloading from internet servers is not possible.

Only loss-free compression processes are to be used for the compression mode. Significant quality losses can result when using JPEG compression. This system should be avoided.

### 2.2. File Designation/Name Convention

A fixed naming convention is not needed, but when identifying all delivered data the naming must be consistent throughout the order. The following details must, however, be used.

- 1.) Identification for the job
- 2.) Identification for the pagina with leading noughts and fixed position in the file name
- 3.) Identification of whether double or single page (for example by means of ID letters "D" or "S")
- 4.) Identification of language version or region (for example XX=Base Version, FR=France, ...)

For instance:

Double spread: XYZ\_D0000XX0000.pdf (Double spread)

Single page: XYZ\_S0000XX.pdf (Single page)

When creating the file name the usage of special types and space tabs should be avoided. The converting to the internal file identification of the printer is made at the printer's premises.

### **2.3. Proof Documents**

For each delivered page 1 quality proof (true to colour) free from corrections must be supplied. For each extra version, an additional final proof is to be delivered.

*The supplied proofs must be produced from the data delivered to the printer!*