

Technical standards No. TP/04

PRE-PRESS

Changes in the technical standards:

26. 1. 2017	Text update	J. Lottmann
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Checked by:	26. 1. 2017	Business manager	Ing. A. Adam
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1. Pre-press conditions:

According to ČSN ISO 12647-3: standards for coldset web offset press

Four color printing (4c)

Colors:	CMYK system
Dot shape:	EllipticalP
Resolution:	1270 dpi
Screen ruling:	40 lines per cm ± 2 lines per cm
Screen angle:	Cyan (C) - 15 °; Magenta (M) - 75 °; Yellow (Y) - 0 °; Black (K) - 135 °

Color separation:	
Percent area coverage:	Total of 4 colors must not be more than 240 %
Maximum Black (K):	min. 85 % (total of 4 colors 240 %)
Color reproduction:	GCR – Grey Component Replacement

Printing material:

Digital form:	Data files
Resolution of half tone graphic elements:	200 - 250 dpi

Formats for the data transmission:

PDF/X -1a: 2001 (ISO 15930)	composite
TIFF G4	compressed separations

Data transmission:

FTP (File Transfer Protocol) MAFRA, a.s. FTP servers.

The data transmission speed depends on customer's equipment and internet connection.

Data transmission media:

To be agreed with the printing plant, formats for PC.

2. Data files

DTP programs (supported applications)

We recommend Adobe InDesign or QuarkXPress for the final output of files that are to be processed in the MAFRAPRINT printing plants. Both most current platforms (Windows and MacOS) are supported for the outputs in PostScript 2 and 3 and in PDF versions 1.3 to 1.6 (Acrobat versions 4 to 7).

QuarkXPress: we recommend using version 8. If using version 9, the printing plant MAFRAPRINT must check the data because the outputs from this version were not yet sufficiently tested.

Adobe InDesign: The versions CS5.5 can be used (versions 2.5 or higher are supported). We do not recommend setting for in-rip trapping on the Windows platform because the support in the print driver is not correct and the destination file cannot be processed.

The other usual graphic applications can also be used for the final output, e.g. Adobe Illustrator (recommended version 10 or higher), CorelDraw (version X4 or higher). But we can generally say that it is preferable to convert pictures from these applications to EPS or PDF. And the assembly and the final output is preferably to make from the applications QuarkXPress or Adobe InDesign. Especially in the case of CorelDraw that is known for its inconsistent outputs.

All the above mentioned programs: we recommend using EPS format (composite or grayscale) for vector graphics and EPS or TIFF for raster graphics (composite or grayscale, resolution min. 180 dpi, max. 350 dpi).

PostScript (standards for PostScript files)

For the final output from the applications into print files in PostScript format a printer driver has to be used that supports the PostScript language at least on the level 2. You must activate the option for sending fonts with the document (embedding fonts in the PostScript document). We recommend the setting „Optimize for Portability“ in the print driver. The resolution of the output device (if application or driver has this option) is to be set to 1270 dpi (or at least in the range 1200 – 2400 dpi). Documents with more pages: we recommend outputting of each page in a separate file (one print page = one output file).

PDF (standards for PDF files)

If preparing a print file in PDF format, we recommend first a correct output to PostScript format and then conversion to PDF format through the application Adobe Acrobat Distiller. We recommend using Acrobat Distiller version 8 or higher. Applications from Adobe Creative Suite version 4 or higher (InDesign, Illustrator): the direct conversion to PDF can be used.

PDFWriter: We definitely do **not** recommend using **PDFWriter** for converting to PDF files.

CorelDraw: We do not recommend direct converting from CorelDraw to PDF.

Acrobat Distiller (concerning settings for direct converting to PDF in the applications of Adobe Creative Suite): a file with recommended settings can be used (ask MAFRAPRINT printing plants for this file).

The files can be added in Acrobat Distiller in the following menu: („Settings“ → „Add Adobe PDF Settings“).

After it the relevant option (MAFRA Print ...) will appear in the list „Default settings“.

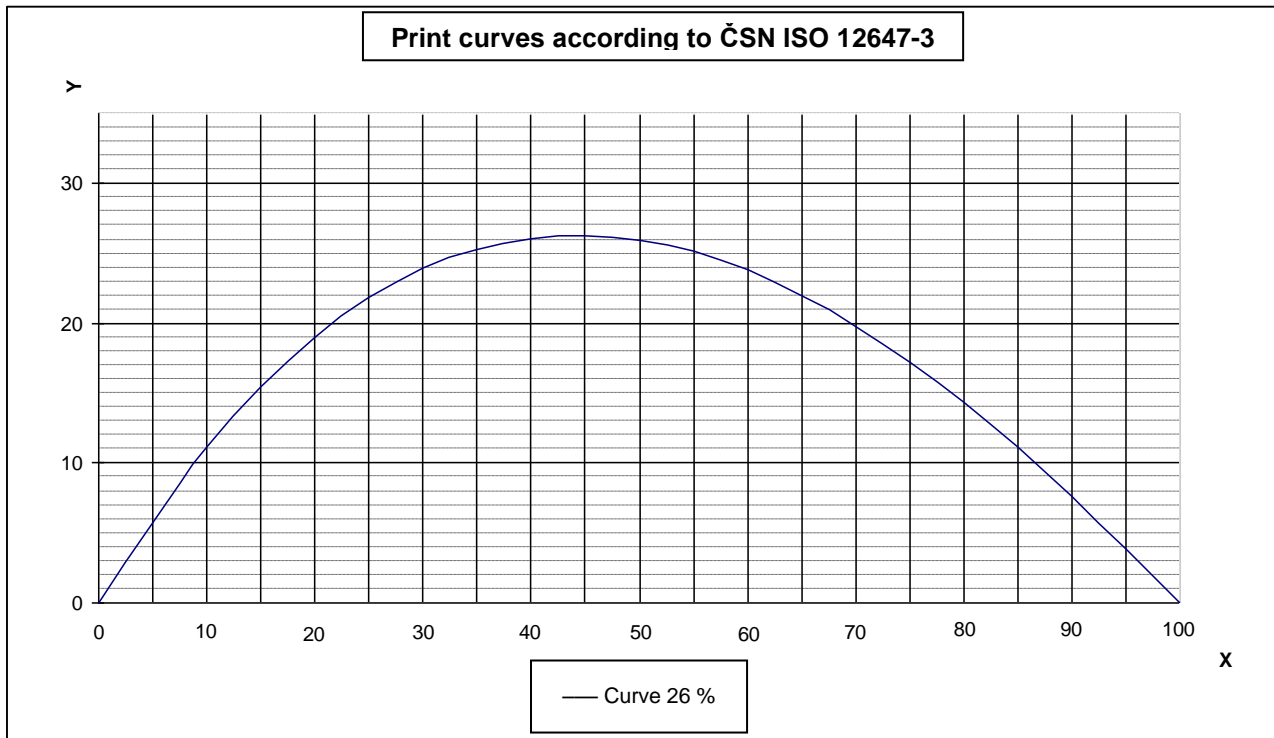
All applications you use for creating PDF files: We strongly recommend installing all updates and corrections, otherwise there could be some problems with processing created PDF files.

Data check

Electronic: Checking data files: data consistency, PDF version, page dimensions, color scheme (if there are some objects in a non-standard color space – RGB, Lab, spot colors, wrong profile), embedding fonts and their min. size, min. line thickness, resolution, type of picture compression.

Proof: The printing plants make digital proofs of important pages for color printing.

3. Printing characteristics according to ČSN ISO 12647-3 for CMYK colors:



Print characteristic curves	
Reference tone value in %	Dot gain in %
X	Y
0	0
10	11,1
20	19,0
30	24,0
40	26,1
50	26,0
60	23,9
70	19,8
80	14,3
90	7,6
100	0,0