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HOW TO PREPARE A FILE  
FOR PRINTING

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**INSTRUCTIONS**

**With proper preparation, it is possible to almost eliminate errors that could occur during printing.**

You have just finished your new work and you would like us to print it for you. In order for your printed product to look the way you envisioned, you need to send us the preparation in PDF format (Portable Document Format). This type of format is “closed”, that is, does not allow subsequent modification of the content and does not require the installation of fonts or links to your images and other applications that you used in the creation.

So, if you send us the appropriate PDF file we can start printing as soon as possible. PDF files are industry standard and can be created from almost any prepress program. The most complete PDF files are created at the so-called “printing” in PDF. You must have the Adobe Acrobat package installed on your computer for this method of creating PDF files. It usually comes with the installation of other Adobe programs. You can also save the file as a PDF (Save As, Export, Publish It or similar), but you must carefully set the standards and check the resulting PDF file in detail (colors- CMYK or Pantone, dimensions- by lowering the cursor to the lower left corner, links, fonts used in production, etc.). To ensure the desired quality and appearance of printed products and to exclude the possibility of error, please read carefully and follow the instructions given here.

Of course, before creating a PDF, you must edit the document in the program in which you create it (Illustrator, InDesign, Photoshop, Corel Draw, Quark, etc.).

The file should always be made to the correct dimension with the bleed included, without any additional markings (crop marks, passer, peg, etc.). The assembly of the sheets themselves will be done in our printing house.

**Word, Excel, Powerpoint, Word Pad and so on, are NOT PRESS PREPARATION PROGRAMS. Using these programs, you can only send us data and instructions for the preparation that is done with us.**

## COLORS, COLOR MODELS

The computer saves and displays the images with a combination of three basic colors- RGB model (Red, Green, Blue). Unlike the on-screen display, the printing technique uses four colors to display the images- CMYK (Cyan- light blue, Magenta- red / pink, Yellow, Black).

The final preparation for printing must be in CMYK mode, provided that the preparation may also contain special SPOT colors (Pantone). It is best to convert images from RGB to CMYK before starting file preparation. Our recommendation is to use Photoshop for that, where it is easiest to adjust the color profile, resolution and image size.

The use of FOGRA 39 and CC profile is recommendable.

### AMOUNT OF COLOR ON SHEETFEDES

The amount of color on the sheet must not exceed 300% neither in images nor in text. So, if possible, it would be best for your color coverage not to exceed 260% of all colors combined. Failure to do so may result in print side effects.

For light shades, coverage of less than 10% should be avoided so as not to lose print quality. It is not advisable to make large areas from 'small rasters', nor from colors made from 3 rasters (e.g., C 26%, M 34%, Y 87% K 0%), so that, when there are possibilities, three rasters should be changed in the stain and 2 rasters (e.g., C 26%, M 34%, Y 100%, K 0%).

### BLACK

For large areas of black, black must not be set only as K = 100, because that way the print will turn pale. To get saturated black, you need to use C = 30, M = 30, Y = 30, K = 100, or even C = 60, K = 100- this type of coating is used only for large black areas, not for text or smaller objects.

K = 100 is used for the text and it should be set to overprint. This prevents the black text from "drilling" the colored background on which it is located.

### PANTONE COLORS

If you use PANTONE colors, all the text, images and other graphic elements that are placed over them to "drill" PANTONE colors, that is, there should be no PANTONE color under these elements. PANTONE colors are used when it is necessary to get uneven tones of colors in all places.

## FORMATS

It is necessary to determine the exact format of preparation at the very beginning. For multi-page publications (books, magazines, brochures, etc.) the full format should not be used (e.g. B5 which is 176x250 mm should be reduced to 170x240 mm) due to the printing process itself and fitting the pages to the sheet.

Do not use the formats offered by the program, but determine them yourself or, best of all, in consultation with us.

**Maximum format of sheets for offset printing is 700 x 500 mm**

**Maximum format of useful print is 680x480 mm**

## IMAGES

The resolution of images and possibly other parts of the document that are not able to be in the vectors is preferably not less than 300 dpi. Be sure to convert the images you use in preparation to the CMYK color model before inserting them into the document.

Check the contrast and color of the image after switching to CMYK to avoid large deviations from the RGB version.

Save images in TIFF or PSD format.

## OVERPRINT

The object or image to which the overprint is assigned is printed without drilling the background. Which means that it is printed over another color, and thus the visual appearance of the printed object or image changes. If a white object is overprinted, that object will not be printed. Overprint is used when printing small black letters or thin lines over the background, but also in case certain effects are obtained.

## TEXT

It is most desirable to TURN all the text into CURVES. Otherwise, certain letters may be lost and the entire preparation may be moved. If there is, eventually, a need to change something later in the file, that is, if you provide us with an "open" file, be sure to save us all the fonts you used to create the file.

If your text is in black, make sure that it is set to C = 0, M = 0, Y = 0, K = 100. Black text that is printed from all four colors leaves a trace due to excessive application of color, mirroring occurs (it is deducted). This rule also applies to drilling text on a colored background. For black text as well as for smaller objects that have only K = 100 use the OVERPRINT option.

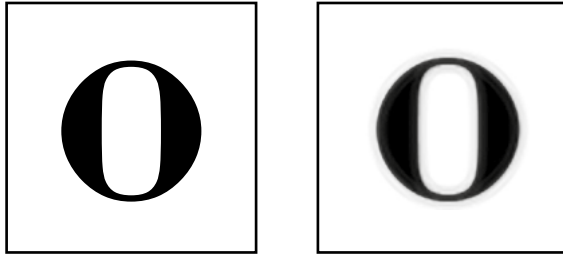
For **BAR CODES**, the rule is to print from only one process or spot color. It is not recommended to make them from multiple colors. We would recommend that you do not insert text in Photoshop or similar programs for the simple reason that rasterized text is always worse than vector, even in high resolution. If you have decided to enter text in a program that uses a raster display, in the end, glue all the layers, that is, integrate text into the document.

It is best when all the elements are in vector format, because then the quality is not lost and ragged edges do not appear.

The text, as well as other vital elements (logo, advertisements that do not enter the trimming part) should preferably be at least 5 mm away from the cutting line. For adhesive-bonded products, it is desirable that the text and other elements be spaced at least 8 mm from the junction of the two sides to be viewed.

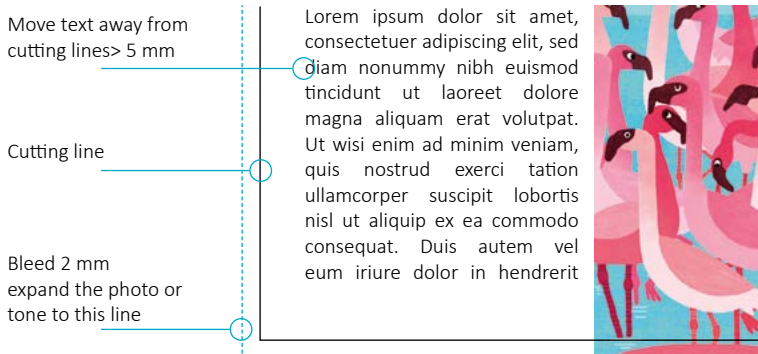
### PAGINATION

Preferably, each page in preparation has a page number obtained by using automatic pagination in the preparation programs. The pagination must be at least 5mm away from the trim line.



### BLEED (TRIM)

The dimension of the PDF document should correspond to the dimension of the required final product plus that it is enlarged on each side by 2 mm (bleed). For example, if the final product measures 210x297 mm (A4), the dimension of the PDF document you send us is 216x303 mm. All colored objects, as well as images, that touch the cutting line should extend to the edges of the document enlarged on each side by 2 mm. Then we say that the object is 'bleeded'.



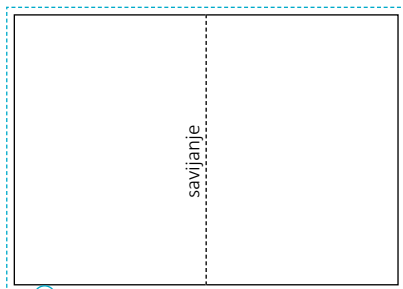
**For items that are glued over the edges** on the building paper, the bleed should be at least 17 mm. In the case of brochures, the bleed is determined by the type of binding

**For binding with a binder or a stapler** (stapling), the bleed is left on all outer sides - no bleed should be left on the inner side (Facing pages option), the covers can be delivered separately depending on the thickness of the rivet with an overhang of at least 5 mm.

**For binding with a spiral**, the bleed is left on all sides, and the covers are delivered in a special file with an overhang of at least 5 mm.

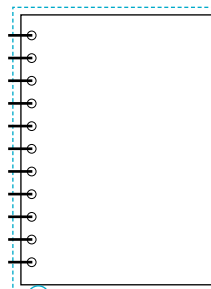
If possible, move the text and other objects that should be visible on the document at least 5 millimeters from the edge, that is, perforation or bend.

### KLAMER, ŠIVENJE



Bleed- 2 mm  
from the outside  
For cover bleed 5 mm

### SPIRAL



Bleed- 2 mm  
from all sides  
For cover bleed 5 mm

## TOOLS

The tools are submitted as a separate document and a blank page with a toolbar only. The tool must be of perfect dimensions and must be perfectly positioned as the object in the document for which it is used.

Take the time to make the tool as meticulous and good as possible to avoid possible mistakes.

## UV VARNISH

As with tools, the UV varnish must be perfectly positioned and placed as a special SPOT color with overprint or in a special layer.

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## HOW TO CHECK FILES BEFORE PRINTING

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## After creating the PDF, you should check the following:

1. the dimension of the document in Acrobat
2. PDF version
3. whether black text “drills” the background (by turning off black in “Separation Preview” in Acrobat)
4. whether special colors are present
5. turn overprint on / off and view changes to the document
6. whether the colored elements are left and whether they are left for a full 3 mm
7. whether the text is correctly spaced from the cutting line
8. pagination, issue number
9. image quality
10. presence of RGB mode

## COMMON MISTAKES

### PREPARATION WITHOUT BLEED

An error occurs if your objects leave the default format and no bleed is released. The solution is to send us a document again or (a less popular solution) to print the file you sent so that it can be printed when cut, that is, to get a smaller format than you have planned.

### UNNECESSARY PANTONE COLORS

An error occurs when unnecessary PANTONE (spot) colors are used. If you want to use one of the colors from the PANTONE spectrum, be sure to emphasize that, otherwise those types of colors when they turn into CMYK often do not look as you imagined.

### TEXT OR BARCODE FROM ALL FOUR COLORS

When text, and especially BARCODES are printed from all four colors, sometimes there are small deviations in the printing (stretching of the paper, color transfer), and this can affect the text and barcodes that would not be legible.

### LARGE AREAS ONLY FROM BLACK COLOR

When only black  $C = 0$   $M = 0$   $Y = 0$   $K = 100$  is used on large areas, the color often appears pale or appears unevenly distributed. Therefore, rich black should be used as explained earlier.



## NON-CONTROL OF DOCUMENTS

Before sending, be sure to check the FORMAT (page size- whether it is set in cropped format, bleed - 3 mm, the final dimensions of the document with cropped format + bleeds).

**PDF** (whether the PDF file was created according to the standards).

**COLORS** (check if all colors are in the CMYK spectrum, if there are other unnecessary PANTONE colors, the application of paint must not exceed 300%).

**IMAGES** (CMYK spectrum, above or below 300 dpi).

**FONTS** (necessarily converted into curves and, if possible, into vectors).

**OTHER** (line thicknesses, glued transparencies, all gradients - ferlauf, fountain fill - must be rasterized, Corel effects must be rasterized).

## PAY ATTENTION!

### HAIRLINE

Hairline lines are of undefined thickness, so it is necessary to determine the thickness of the line yourself, and to use 0.1 mm as the thinnest.

### GRADIENT/FOUNTAIN FILL

Gradients or ferlaufs generally do not work well in print because they usually contain a large number of shades of a color. If you use them, be sure to rasterize them and add monochrome noise in Photoshop.

### COREL EFFECTS

Corel effects (Lens, Powerclip, Blend) are not an industry standard and are difficult to emulate. If you use them, convert them to a bitmap of at least 300 dpi in Corel itself: Bitmaps> Convert to Bitmap.

### TRANSPARENCY

If you use transparencies, be sure to rasterize them and all objects they affect.

### OTHER

If you have a multi-page document, be sure to pay attention to the following:

For double-sided printing, the number of pages must be even; If the number of pages is stapled, it must be divisible by 4; Contact us before preparing the document to agree on the number of pages that would be most optimal for your needs; Plan and include blanks in the preparation.

**If you still send us an open file (Illustrator, InDesign, Photoshop, Corel, etc.), it is mandatory to save all used fonts, images (links), or turn all the text into curves and “glue” the images in the file.**