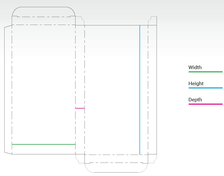
Pre-press Instructions

Pre-press and the preparation of printing files is a complex process, demanding knowledge and the adherance to certain rules. Only that way, we can achieve a high-quality print and the desired results. The basic determinants are of course the resolution of the pictures (dpi), the color space of all elements in the design (CMYK, Pantone), the bleed at crease and cut lines, the distance of graphic elements from crease and cut lines, the overprint settings, the total ink coverage... A high-quality print depends on the correct preparation of the print files. It allows us to process the files without corrections and by that it helps us to stick to the timeframe. Although we carefully check every file before printing, we ask you to mind the following:

1. File size

The print files have to be prepared in a 1:1 size ratio. Pay attention to the correct sequence of length, height and width of the drawing.



2. Resolution of graphical elements and pictures

The resolution defines the number of colored dots per inch in a certain area (dpi). The higher the resolution, the higher the density of dots in a certain area, and as a consequence, the quality of the print. Use graphical elements with a resolution of 300 dpi in a 1:1 ratio.

Frequent mistake: Lower resolution leads to a pixellated, blurred and grainy print. The resolution of pictures from websites is usually too small to print.

resolution 300 dpi and low resolution 72 dpi.

3. Color space

The whole design has to be prepared in CMYK color space, or with pantone colors. If the design also contains tools, dimensioning, varnish effects, embossing, hot foil or other effects and markups, that are not to be printed, please save them in a pantone color not actually used in the design.

Frequent mistake: In many cases we find an inappropriate color spaced being used in the files, most often RGB. Although we can directly convert into CMYK, we that way unwillingly interfere into the color parameters, because not all colors can be converted 1:1. Intensity and brightness might be changed, which might result in an altered outlook of the print when compared to the desired original. Because of that, your print files to be provided in CMYK color space.

4. Black color

There is some things to bear in mind when pre-paring black as a color for plotting. Most of the time we want an intensive, deep black color. In this case, we recommend a composition of CMYK – 30%C, 0%M, 0%Y, 100%K. In case of a larger area to be printed in black, consider CMYK – 30%C, 30%M, 30%Y, 100%K. In case of texts and codes, it's the other way round. You only use 100%K, and no composition of the other colors. By doing this, we prevent register variations and provide maximum sharpness, which is vital especially for barcodes.

5. Ink coverage

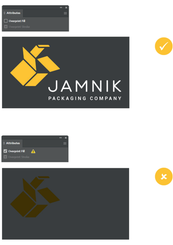
Total Area Coverage or colour saturation depicts a sum of the coverage of each and every color in a certain area of the design. For example: 30%C, 30%M, 30% Y, 100%K = 190% ink coverage. We therefore ask you not to exceed a maximum total ink coverage of 280%.

6. Overprint function

If you have not changed the transparency of your artwork with the Transparency panel, the fills and strokes in the artwork will appear opaque, because the top color knocks out, or cuts out, the area underneath. You can prevent knockout by using the Overprint options in the Attributes panel. After you've set your overprint options, you can preview the overprinting effects on-screen.

Basically, the following applies when overprinting light and dark colors: If there is a dark element on a light background, select overprint for the dark one. If there is a light element on a dark background, select overprint for the light element.

Frequent mistake: Wrong overprint settings can result in the loss of graphical elements. Before you hand in your design, thoroughly check it with activated overprint function (overprint preview – always on).



7. Unprinted and unvarnished windows for dates and batch codes

Uncoated or unprinted areas a special areas on the design, which are stamped with additional information like expiry dates or batch codes after packing the goods. Please mark them distinctively, as they usually appear substantially lighter than the rest of the box and they are also without varnish.

8. Bleed

All items are printed on large sheets and afterwards cut out by machine. During the die-cutting process, minor deviations from the CAD cut and crease lines can occur as a result of material extension or simply because of the machine tolerance. In order to avoid white stripes on the edges, an additional safety-space is printed over the cutting line, which is later cut off. This so-called bleed is added over the edge of the cutting line, but also around the crease lines. For solid board, we recommend 3mm of bleed, for corrugated board at least 5 mm.

LEGEND:

Cutting line of the tool

Design with bleed

9. Distance of graphical elements of crease and cut lines

This is done for the same reasons as bleed, only in this case the »safety-space« is not directed outwards, but towards the center of the element. By that, we prevent cutting of important details of the element or design. Graphical elements like texts and logos should be at a distance of at least 3mm inwards of the crease or cutting line, for corrugated board at least 5mm (depending of the thickness of the corrugated board).

LEGEND:

Cutting line of the tool

Safe space for placing design elements

10. Preparation of files with partial varnish, embossing or hot foil stamping

Elements with partial varnish, embossing or hot foil stamping are treated like object masks or stand-alone elements, defined by you for further finishing after print. You save these elements in a pantone color not used otherwise in the design. If the design contains two different finishings, you use two different pantone colors, one for each effect.

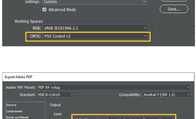
LEGEND:

Special color used for partial UV gloss varnish, defined as »Spot Color«.

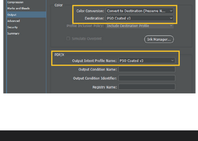
11. PDF file format

PDF is the ideal file format for exchanging design- and textfiles. PDF/X format is suited for graphic design. This is because of its structural complexity, which is vital for the correct color reproduction during the print process. In order to export your file into .pdf, use the standard ISO 15930-7:2010: **PDF/X-4:2010** profile, and CMYK color space. Export your file into PDF/X-4 format, version **PDF 1.6.**

Most image editing programs allow you to use both RGB and CMYK color space. If you use RGB elements, you can convert them into CMYK + pantone (spot) colors by using the correct export parameters. For the CMYK color space please use the ISO 12647-2:2013 (FOGRA 51/52) **PSO Coated v3** or **PSO Uncoated v3** standard profile, which you can get here: http://www.eci.org/doku.php?id=en:downloads.



For the export of files containing RGB elements into .pdf, use the following color space settings:



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