[BOXXCO]

General requirements for your print data

On the following pages, the generally accepted basic requirements for print data are clearly listed.
Your order can only be processed correctly and as quickly as possible if these requirements are met.

Quick check

■ Please request the stand sketch suitable for your article in advance and insert your print image in it. This way we can see the desired order and the stand.

■ We use Adobe Acrobat, Illustrator, InDesign and Photoshop 2023.

■ Please do not provide us with files from Word, Excel, Powerpoint!

■ Pixel graphics (bitmaps), such as .jpg, .tiff, .psd and .bmp can only be printed in 4 colours and are therefore not suitable for 1 to 3 colour printing!

■ Please always embed images and send them separately.
Resolution at least 300 dpi in the desired size!

■ Vector graphics are generally to be provided as print data.

■ Please provide the data in the desired colours or special colours.
CMYK for four-colour prints and special colour with indication of the HKS or Pantone value.
Please avoid data in RGB colour space!

■ Please convert used fonts into paths or include fonts.

■ There is no need for crop marks, registration marks, colour control strips and page information. Please inform us separately about existing bleed.

Punching contour

Create a punch outline for your desired shape. This must be defined as a solid colour with the name "Punch" and set to "Overprint" so that the objects under the punch outline are not left out in white during printing.

Safety margin, type area and bleed

If you place images, graphics or areas right up to the edge (punch outline), you must position these objects at least 2 mm above the edge (bleed). This avoids white cut edges. Fonts and other important elements within the page should keep a distance of at least 1.5 mm to the punch outline. Type area defines the area where text and other important elements should be placed.

type area

safety distance
min. 1.5 mm

ABC

bleed
2mm
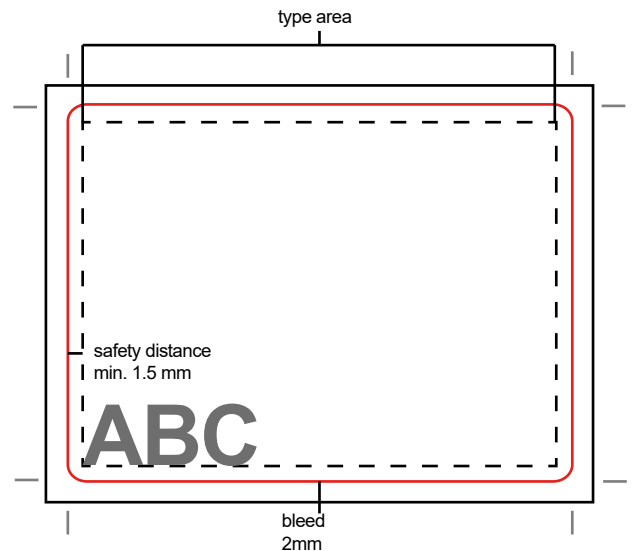
Overprinting / knockout

When overprinting, the upper element is printed directly on top of the lower one - both colours mix.
With knockout, the lower element is "exposed" for the area of the upper element - the colour remains in its pure form.

overprint

recess

Embed fonts

Please embed all fonts used in the print data. Alternatively, you can convert the fonts used in your layout into curves/paths.

Font as text

Font as curves/paths

Colour space CMYK

The printing industry works with the colour space CMYK (Cyan, Magenta, Yellow, Black). Create your files in this colour space. RGB (red, green, blue) is used for viewing on screen but cannot be printed.

C   M   Y   K   R   G   B
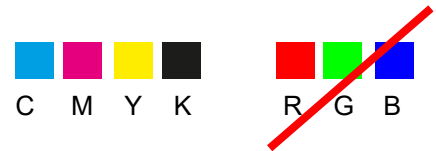
Special colours (Pantone or HKS)

Use the original colour designations from the Pantone or HKS colour table. The conversion to CMYK is done on the press.
Special colours can only be used in conventional printing. In digital printing, the colour space is CMYK, spot colours are only simulated.

Pantone 375   simulates →

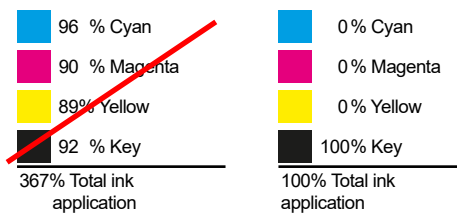|	
49	% Cyan
0	% Magenta
100%	Yellow
0	% Key

CMYK
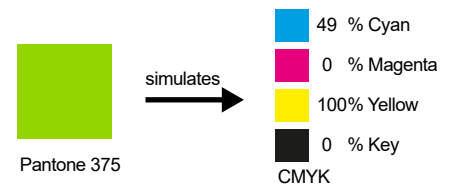
High-resolution images

Only use high-resolution images with at least 300 dpi (dots-per-inch), depending on the image size. Pictures with less dpi, for example low-resolution pictures from the internet, cannot be printed clearly and appear "pixelated" (blurred) in the print.

ca. 300 dpi   ca. 72 dpi

Ink application

The maximum ink coverage should not exceed 300%. Black should be composed of pure black (100% K).

96	% Cyan		0	% Cyan
90	% Magenta		0	% Magenta
89%	Yellow		0	% Yellow
92	% Key		100%	Key

367% Total ink application   100% Total ink application

Data formats

Please use PDF, EPS, TIFF, JPG.
Not suitable are open files from: Word, Exel, PowerPoint, CorelDraw, ...

PDF   EPS   TIFF   JPEG

Flexographic printing

In the corrugated cardboard industry, the ink is predominantly applied to the substrate using the flexographic printing process.

Flexo printing is a letterpress process. The printing areas are higher than the non-printing areas and are inked. This is then transferred directly onto the corrugated board.

Positive lines must be at least 0.2 mm thick and negative lines at least 0.3 mm thick.

Minimum font sizes: positive = 5 pt
                                    negative = 6 pt

The standard screen ruling is 24 to 28 l/cm, depending on the type of corrugated board. By prior arrangement, up to 32 l/cm are possible, depending on the motif and corrugated board type.

The distance between images, texts, logos, codes etc. and creasing/cutting lines should be at least 4 mm for die-cut packaging (processing with several production machines).
The distances for inline packaging should be at least 10 mm (processing in one machine).

Example 1-colour flexo print on corrugated board brown

Offset printing

Offset printing is used for high-quality packaging in medium and also high print runs.

Offset is a flat printing process. The printing and non-printing parts of the printing forme are on the same level, i.e. they are neither raised as in flexographic printing nor recessed as in gravure printing.

The printing forme is usually a thin and flexible metal plate that is clamped around a printing cylinder. This printing forme is prepared in advance so that the areas that are to print later accept the offset ink. Areas of the printing forme that are not to print do not accept the ink. The printing forme takes up the ink and passes it on to a rubber blanket. From the blanket it is then transferred directly to the material to be printed.

Offset printing is of greatest importance for sales and shelf packaging as well as for advertising media, e.g. displays. Offset printing is used less for purely shipping packaging.

The printed sheets are then laminated (glued) onto an open corrugated board web and further processed into packaging in additional steps.

Varnish-free areas and gluing areas are to be provided with appropriate overfill 6-10 mm in the ink and left blank. Images, texts, logos, codes, etc. should not be less than 5 mm from the cutting and bending lines. If cut, adjacent, differently coloured areas/screen motifs meet, they must be intersected at an angle of 45 degrees. To avoid white "flashes" caused by register differences between adjacent, different colour areas, an overfill of 0.2 mm is to be provided. This also applies to texts and motif elements with a coloured background.

Example 4-colour offset printing on coated paper

Digital printing
Digital printing is becoming more and more important for the corrugated industry. It is suitable for small to medium runs.

The sheets of corrugated board are printed directly using the inkjet process and processed into packaging in further operations.

No clichés or printing plates are needed, but the digital data is sent directly to the printing machine.

Digital printing makes it possible to produce individualised packaging with high quality, even in small print runs.

Special colours are generally converted to CMYK.

For line and font sizes as well as distances between elements and creasers and punches, we recommend using the specifications from flexo or offset printing.

Example CMYK digital print on a maxi letter