

## bag-in-box packagings

Beverage bags in a carton - a real alternative!



With bag-in-box packaging, liquid food can be offered in a visually appealing form, larger packaging units and with a longer shelf life. This makes it the ideal packaging for the beverage industry.

<b>Quantity</b>	1000 pieces or more shippable in partial quantities
<b>Format</b>	small and large formats tailored to your requirements
<b>Colors</b>	up to 10 colors + varnish in offset printing up to 4 colors + varnish in digital printing spot colors in offset printing
<b>Material</b>	corrugated cardboard (all common flute types)
<b>Quality</b>	up to 150 DPI in digital print up to 60 lpc in offset print
<b>Adhesive technique</b>	customized as required
<b>Shipping</b>	express shipping individual shipping

### Printing process

As soon as your order and your data are present, we'll get to work. If we don't receive a color proof from you, we're going to create it and send it to you. After your approval we'll print your packagings and send it to the distribution list you provided.

At Ellerhold, we want to provide the best possible service: you deliver your data, we take care of everything else - immediately. Our employees will be happy to advise you right from the start.

<b>Layout</b>	Scale 1:1
<b>Bleed</b>	+ 5 mm circumferential via the cutting line
<b>File format</b>	PDF/X-4 Standard (Version 1.6)
<b>Fonts</b>	embedded / converted into paths
<b>Safety distance</b>	5 mm to edge in the creation format
<b>Print finishing</b>	vectorized as spot color, marked clearly
<b>Resolution</b>	300 DPI at 100 % positioning in the creation format
<b>Colour application</b>	max. 320 %
<b>Colors</b>	CMYK / spot colors (no RGB)
<b>Data transfer</b>	by email, link or file-upload, max. 500 MB

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**Note:** The product properties may not be freely combinable and may vary per production site!

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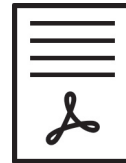
## Print data notes for Bag-In-Box Packagings

### File format

#### Please send us your motif as a PDF document.

Please send us your motif as a PDF document in the format PDF/X-4 Standard (Version 1.6). Make sure that all fonts are fully embedded in the document or converted to paths.

We can't accept any other file format.

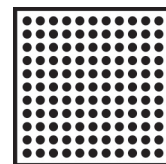


### Resolution

#### Images, placed in 1:1 size, should have a resolution of 300 DPI.

Please avoid providing us with even higher resolution images at all costs. Such data volumes cannot be processed. Higher resolutions do not add any value in terms of detail, but only slow down the processing unnecessarily. However, do not go further than 10% below the recommended resolutions either.

If you have worked with several image layers, please collapse them to a single layer before sending the document to us.

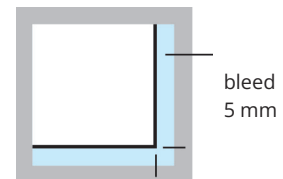


end format  
300 DPI

### Bleed

#### Create a bleed of 5 mm all around.

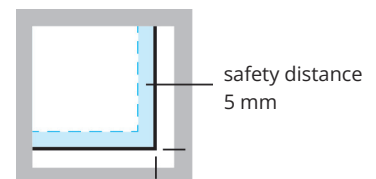
The bleed should not be added as pure format addition if possible. You can add a bleed in most layout programs (e.g. Adobe InDesign, Adobe Illustrator) during document setup. When creating your print file, make sure that the bleed you create is also exported to the PDF.



### Safety distance

#### We recommend a safety distance of 5 mm in the creation format.

When designing your bag-in-box packagings, we recommend that elements located at the final format border or the punch contour be drawn into the trim or end with a safety distance of 5 mm in front of it.



## Colors

### Create all data in CMYK.

Please create all data (including images or other objects) for your bag-in-box packagings in CMYK and / or spot colors. Please convert RGB data to CMYK yourself to avoid unwanted color changes. RGB colors are only used for color representation on the computer screen. To display the smaller color space of the printing inks, the CMYK color mode is better suited. Thus, you can already see on the monitor how different color tones will appear less vivid in print due to the smaller CMYK color space.

For production reasons, solid colors are only possible in offset printing. If it is a digital print, these colors are simulated as well as possible. The maximum ink application should not exceed 320%.



## Black composition

### Create black and gray fonts in (0/0/0/100) CMYK.

Black and gray fonts as well as objects should only be created in pure black (0/0/0/100) CMYK. For such objects it is not recommended use "undercolor addition" as this can easily lead to flashing color at the edges.

### Create large black areas in (50/0/0/100) CMYK.

In order for black areas to appear properly deep black, it is necessary to add a so-called "undercolor addition". Cyan is added to the black. This only applies to large black areas and headlines - not to smaller font sizes!

a  
0 0 0 100

  
50 0 0 100

## Trapping

### Overfills/underfills do not have to be created separately.

Since the printing inks are printed one after the other, so-called flashes (white spaces) can occur. To avoid this, the edges of the background and the element must overlap slightly. This is called underfilling and trapping. So that the element does not suddenly appear larger or smaller visually, the lighter color is always overfilled and the darker underfilled.

Please note that overfills and underfills do not have to be created separately. We will take care of that, individually matching your product.



## Overprint

### Use overprint function to avoid possible flashes.

The overprinting function can be used in individual cases for your bag-in-box packagings when creating the print data in order to avoid possible flashes when printing later. When overprinting, however, it should be noted that the colors in offset printing are transparent, i.e. translucent. If, for example, a blue circle is printed on an orange background, this will not result in a blue circle but in green as a mixed color. Consequently, overprinting does not work with colored motifs; only black objects can overprint colored backgrounds in most cases.

White elements that are set to overprint are not visible in the print!

With the exception of refinements, the punch contour or the contour cut, therefore, avoid the overprint function unless you explicitly want this effect!

To activate the overprint preview in Adobe Acrobat Reader, please follow the instructions in our [manual](#).

## Print finishing

### Finishes must be created as spot color.

If you want to apply a print finish on your bag-in-box packagings you need to use a spot color (solid color) for it. The name of this spot color should be the type of finish you want and it should be set to "overprint"! If you do not set the spot color to overprint, the underlying color will be omitted and a white area (paper white) will be printed with the finish on top.

## Barcodes

### Barcodes are to be created according to the appropriate standard.

If your bag-in-box packagings should have barcodes, they usually have to be created according to "DIN EN 797 (ISO 15420)" and "CEN / ANSI-DIN EN 1635 (ISO 15416)" specification. They should be shrunk or enlarged according to the SC standard.

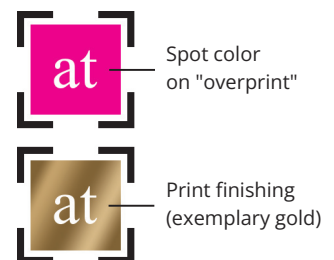
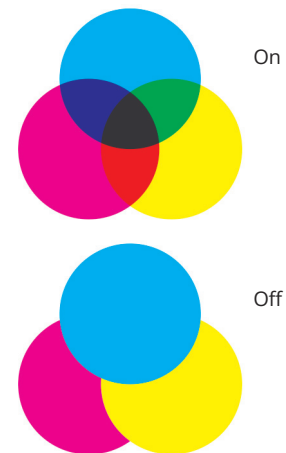
It is important that there is enough contrast to the background - ideally 100% black on a white field. Only a pure black (0/0/0/100) guarantees an exact representation on the print image and optimal readability for barcode scanners.

Please use vector data only.

## Cutting line / contour cut

### Use only the latest cutting line for your layout.

Please use only the latest cutting line to build the print layout of your bag-in-box packagings on a scale of 1:1. Make sure that the cutting line is created as a spot color called "cutting line" in a separate layer with the attribute "overprinting".



## Data transfer

### The data transfer should be done by mail or via web services.

Please feel free to send us your print data for your bag-in-box packagings via mail. For print data over 20 MB, we recommend that you send ask us first how to send over your print data.

Please only send us files that are required for the order in question. The data should be clearly structured and easy to assign.

Please also note the maximum file size per motif of 500 MB.



## Print approval

### 1. You will receive in advance a low PDF for viewing by email.

Before the start of production, you will receive by email a low PDF for viewing and approval of your bag-in-box packagings. Check there basically whether we have received the correct data (eg variant or motif) before we process the data. The PDF is extremely compressed for speedy email traffic and is only used for checking the content (sentence and spelling errors). Please note that all colors cannot be displayed color-accurately on a monitor. Please give us the release by replying to the sent email.

### 2. After release of the low PDF you will receive a 1:1 PDF via link.

Here, from the color separations ripped for the printing plate exposure, a 300 DPI image is created for you at a scale of 1:1. There you can take measurements and better estimate dimensions of the design. The punch contours included in this 1:1 PDF are not exposed.

Please note that these data are not suitable for checking the color values, because these data contain printing screens and there printing press-specific color curves were applied. Use for color control exclusively the A3 proof.

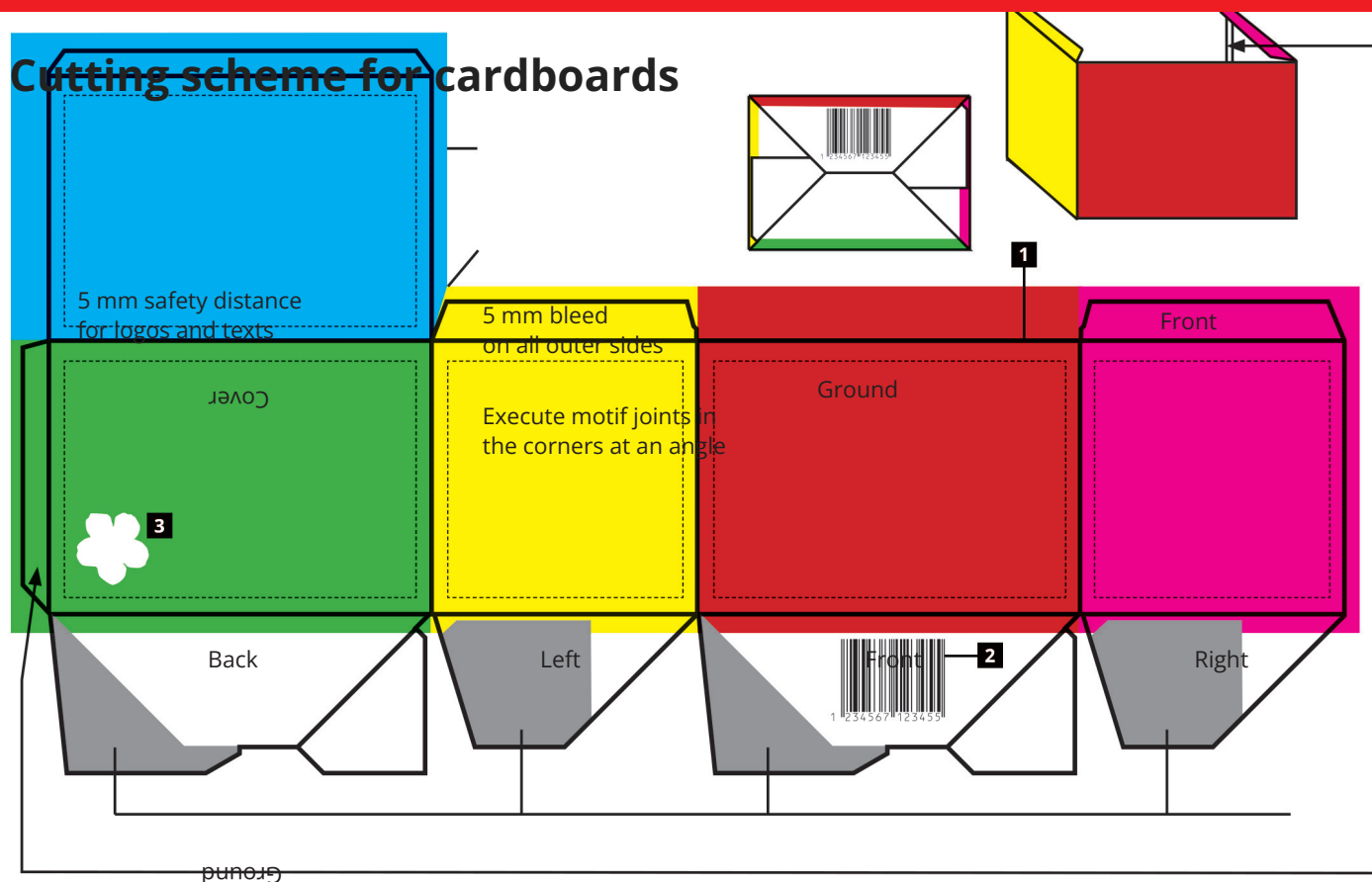
### 3. Parallel to the 1:1 PDF, we send an A3 proof by mail.

Please control in this reduced A3 format the color values to be expected in printing. Please note that solid colors can only be simulated in CMYK. An approval form is enclosed with the proof, which we receive back filled out by fax. We also accept release emails, which refer specifically to the proof and the 1:1 PDF.

Only by a timely data delivery is a production without delay to ensure. The required time for creation and shipping of these release documents is to be ensured by a timely data submission.

If you have also received a white sample for approval, we also need a release for this, so that the required tools (dies, etc.) can be manufactured. This release can be marked on the release bill or mentioned by mail. Without the written release of all documents can not be produced!





Adhesive tab always at the back

## Explanations & hints

- (1) Cutting lines should be added as a solid color set to overprinting.
- (2) Please create black texts, logos, EAN or QR codes in 100% black (0/0/0/100).
- (3) White elements that are set to overprint will be invisible after printing.
- (4) The sum of all color components in one spot should not be greater than 320%. You can use the print production/output preview tool in Adobe Acrobat to check this.

## Elements across areas

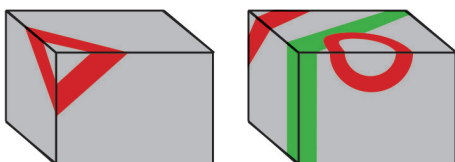


### Explanations

(1, 2, 3) These distances must be equal so that objects that span surfaces meet. Please always measure where the surfaces are connected!

(4) Do not measure at the outer edges!

### Hints



Such cross-surface designs are generally difficult to realize, since even small cutting tolerances lead to visible inaccuracies. Refrain from designs on the bottom that are to be composed of several bottom flaps. These would not fit together well due to the moving parts of the base!