DATA SHEET | GENERAL

CREATE THE PERFECT PRINT PRODUCT

Introduction

The possibilities for designing and producing print products are many and varied. Whether typography, image editing, graphic elements, page layout, bleed, colour management or PDF export - the Adobe CC programs offer a wide range of functions with countless menus and therefore a lot to consider when creating print data.

For this reason, we have listed the most important basics on the following pages to help you create perfect print data.

Table of contents

Further information on this topic can be found at:

www.eci.org (ICC profiles and colour management)

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PRINT DATA CHECKLIST

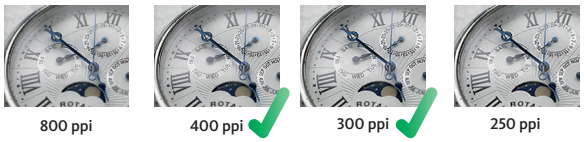
Print PDF

- Please save your print file as PDF.
- Create the PDF as PDF/X-4 (preferably without RGB or Lab), i.e. with the following setting: Standard: PDF/X-4, Bleed: 3 mm, Color Conversion: Convert to Destination (Preserve Numbers), Destination Profile (e.g. ISO Coated v2).
- Use our recommended colour presets and PDF export presets (from page 3).
- RGB data and spot colours contained in the PDF will automatically be converted to CMYK according to your order.

Image resolution

- Photos, images, graphics and greyscale: 300 - 400 ppi.
- Line images (e.g. drawings or rasterised texts with a small font size): 800 - 1,200 ppi.
- Posters/plots: 150 - 300 ppi.
- Lower image resolutions may result in blurring or pixelation. Higher resolutions usually lead to an imperceptible improvement in the printed image and increase the storage space.

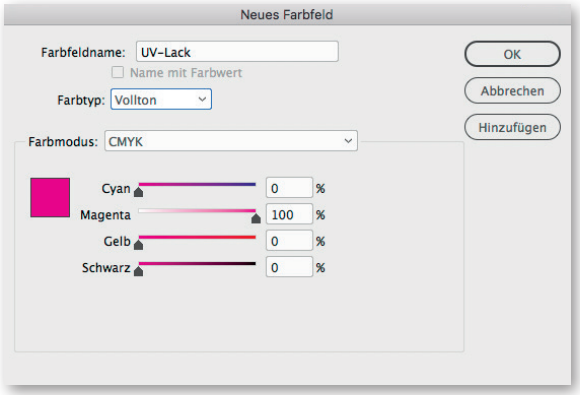
Colour/halftone images:



Line images:

Document colours

- Send your data in CMYK and include the destination colour profile.
- For monochrome prints, ensure that your data only contains one colour channel.
- Do not create black text as a mixed colour in 4C.
- Avoid using the colour 'registration marks'.
- Use the following colour values for deep black areas: C 50, M 20, Y 20, K 100.
- Configure grey images or areas as greyscale.
- Only use the spot colours that you have ordered in your document. Provide the colours with a correct and unique name (e.g. PANTONE 179 C). This also applies to finishing and tool colours, such as UV or relief varnishes, embossing, die-cutting, perforations, etc..



- Create the finishing or tool colour as a separate spot colour in the document. Make sure to send us the following PDF documents:
  - 1x data file for print production
  - 1x the finishing or tool colour only
  - 1x both combined (whereby the finishing or tool colour must be set to overprint)
  - The trim box (final size after trimming) and the position of individual elements must be identical in all PDF documents.
  - The PDF must contain vector data (no pixel images).
  - The tool colour (e.g. cutting die) must be created as a continuous path.
  - The PDF document must not contain any elements covered up with white elements.

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PRINT DATA CHECKLIST

Fonts

- Embed fonts in the PDF document to prevent problems with the spacing and typeface.
- When sending open data, the fonts must be provided or converted into outlines/curves.

Trimming and bleed

- Set a bleed of 3 mm to avoid white slivers around the edges, that can occur during production due to cutting discrepancies.
- Please note that all graphic elements or background images that are to extend to the edge must be integrated into the bleed area. All other elements should be placed at least 4 mm from the edge of the final page size.

Line thickness

- Make lines with at least 0.25 pt to prevent thinner lines from breaking away.
- Lines that are still too thin in the PDF will be automatically corrected. The line width in fonts will not be adjusted.

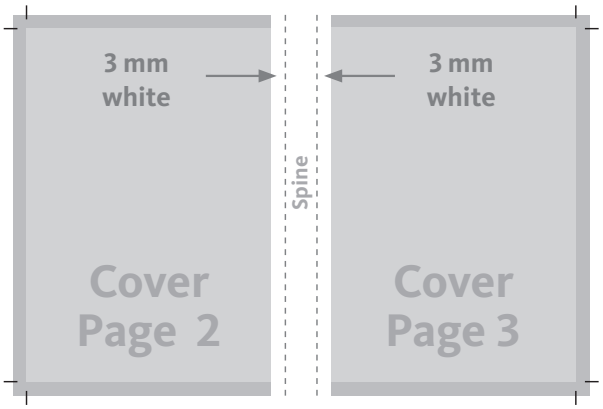
Page sequence

- For multi-page products, please send consecutive single pages and no spreads (this also applies to saddle stitched covers). For folded flyers, please arrange the pages according to the data sheet.
- Make sure all superfluous pages have been deleted.

Brochure covers

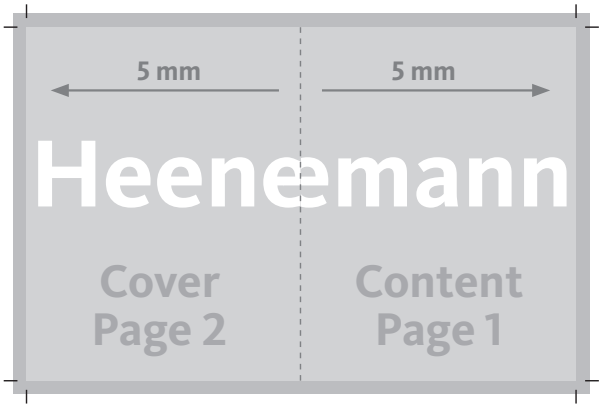
- Covers for perfect binding and thread sewing require a spine. The spine thickness varies depending on the page count and grammage of the paper. You can find the spine thickness in the web shop or you can contact us if you have any questions. We will be happy to provide you with information about your product.
- The PDF must be supplied as a spread sheet including spine width.
- In order for the book block to adhere firmly to the cover, the spine on the inside cover spread must be surrounded by 3 mm white to the right and left of the design.

Example:



- Attention image crossovers! Please note that graphic elements are lost in the transition between cover and content page due to the gluing. If you have image crossovers or text in this area, these must be moved out of the binding area by 5 mm.

Example:



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ADOBE COLOUR SETTINGS

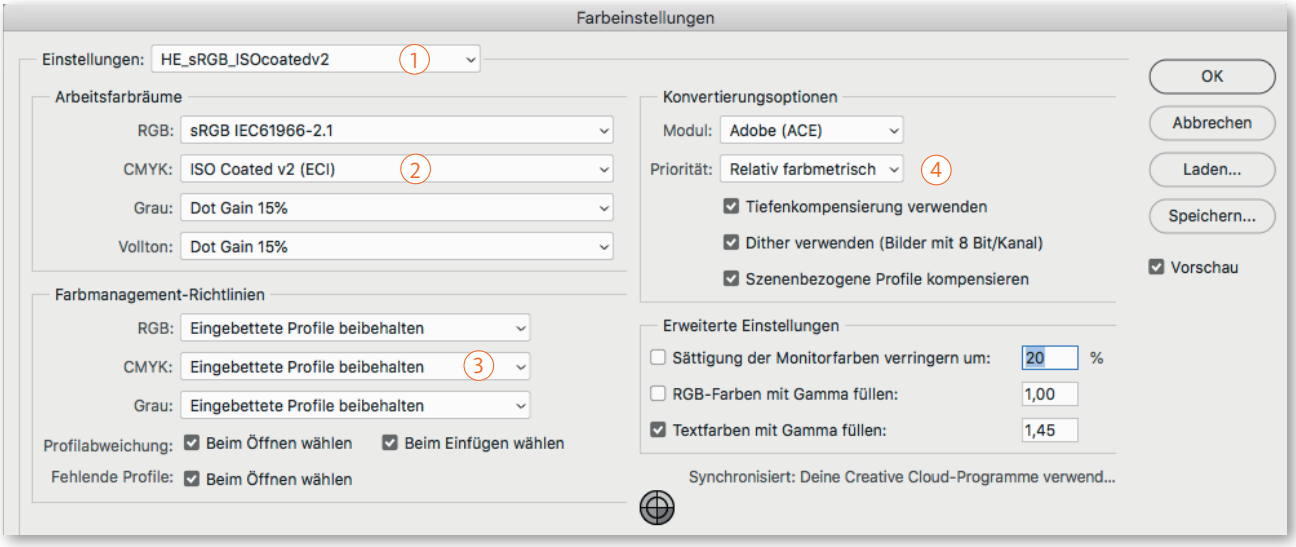
Installing the profiles

You can download the ECI ICC profiles at www.eci.org. The 'ECI_Offset_2009' package contains all the necessary colour profiles. To be able to select the ICC profiles (e.g. ISOcoated_v2_eci.icc) in the Adobe Creative Cloud, they must be stored in the following directories:

Mac	Library › ColorSync › Profiles
Win	Programs › Shared files › Adobe › Color › Profiles (or click right mouse button › install)

Applying the profiles

For digital printing or an order in the web shop, use the ICC profile 'ISO Coated v2 (ECI)' as standard. This applies to all papers. In offset printing, the colour profile depends on the substrate and the printing screen. For coated paper, we recommend the 'ISO Coated v2 (ECI)' profile (AM screen) or 'PSO Coated NPscreen ISO12647 (ECI)' for FM screens. For uncoated paper, use the profile 'PSO Uncoated ISO12647 (ECI)' (AM screen) or 'PSO Uncoated NPscreen ISO12647 (ECI)' for FM screens. You can assign the required working colour space in Adobe InDesign as follows: Menu › Edit › Assign Profile...

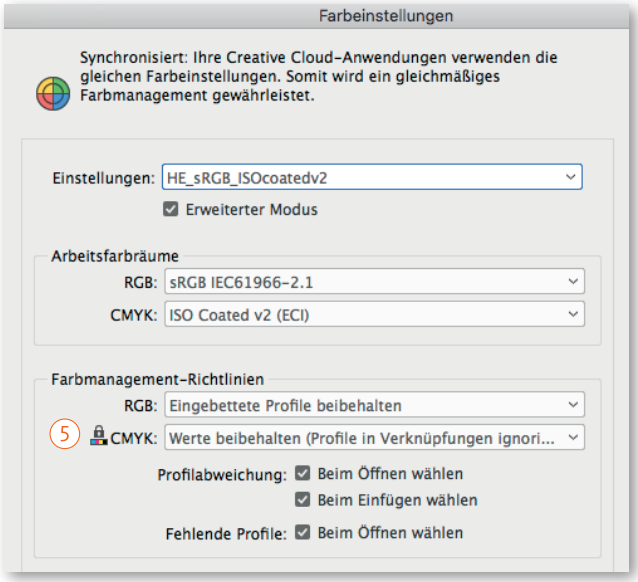


Configuring colour settings in Photoshop

Go to 'Colour Settings' in Adobe Photoshop and make the settings as shown above. Then click on 'Save' and select a file name (e.g. HE_sRGB_ISOcoatedv2). You can then load your colour settings in all Adobe programs or synchronise them via Adobe Bridge. To do this, select your setting in the Bridge under 'Edit' › Colour Settings and click on 'Apply'.

Explanation of the settings

The setting (1) serves as an example for offset printing on coated paper. The 'Working Spaces' area (2) determines which profiles you work with by default. The profiles mainly come into play when you open image data in which no profiles are included. The settings therefore influence how your image data is displayed on the monitor and how it is converted. The 'Color Management Policies' (3) ensure that images that are already provided with a profile (e.g. by a digital camera) are not converted to the working colour space without being asked. The rendering priority is defined in the 'Conversion Options' (4).



Adobe InDesign: Attention! When loading the setting, the 'Color Management Policies' change to 'CMYK: Preserve Numbers (Ignore Linked Profiles)' (5). This is intentional and should avoid an unwanted CMYK to CMYK conversion!

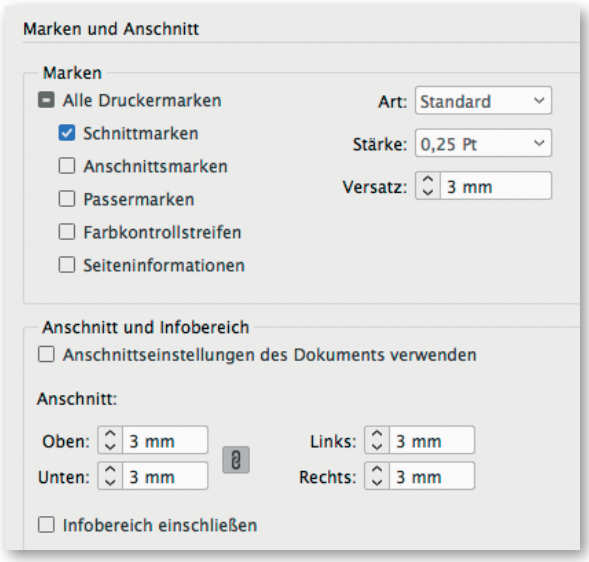
CREATE AND CHECK PDF

PDF export from Adobe InDesign

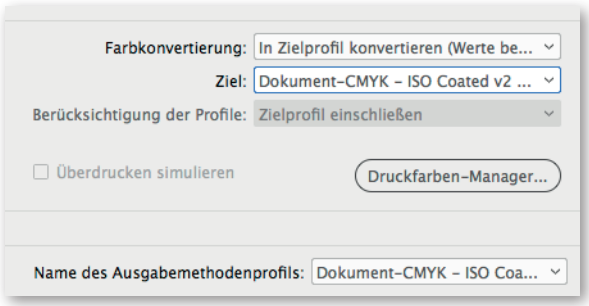
With InDesign you can export a PDF file directly and securely. Please use a PDF/X-4 without RGB or Lab to save your data. Proceed as described below:

1. Go to ‘Export’ via the ‘File’ menu.
2. Select a file name and ‘Adobe PDF (print)’ as the file type. Then click on ‘Save’.
3. Select the Adobe PDF standard ‘PDF/X-4:2008’ in the PDF export dialogue.
4. Go to the ‘Marks and Bleeds’ area and tick the ‘Crop Marks’ box. Also set the offset and bleed to 3 mm. If you have defined the bleed area in your document, you can alternatively use the ‘Use Document Bleed Settings’ function (1).
5. Go to the ‘Output’ area and set the colour conversion there to ‘Convert to Destination (Preserve Numbers)’ (2). Also include the ‘Document CMYK’ as the destination profile. For digital printing, use ‘ISO Coated v2 (ECI)’. This applies to all papers. In offset printing, the colour profile depends on the substrate and the print screen (see page 3).
6. You can then save the settings and export the document.

(1)



(2)

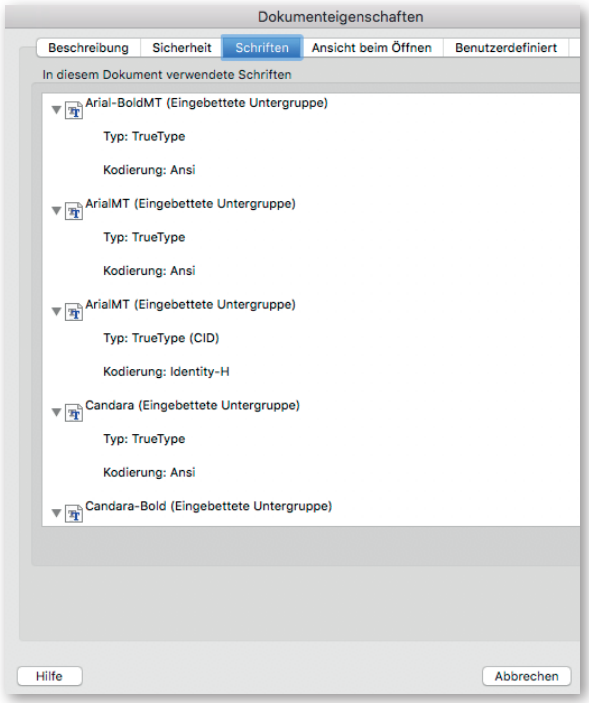


PDF check in Adobe Reader and Acrobat Pro

Finally, you should check whether your PDF file has been prepared correctly. If you only have Adobe Reader available, the check is limited to the following points. Additional checking options in Acrobat Pro can be found on page 6.

1. Check whether all superfluous pages have been deleted.
2. Go to ‘Properties’ via the ‘File’ menu and check whether all fonts are correctly embedded in the PDF. In the ‘Fonts’ section, ‘Embedded’ or ‘Embedded Subset’ must appear after each font (3).
3. In the ‘Description’ section, you will find the ‘Page Size’ of your file. If bleed and crop marks are present, the document should be larger than the final page size.
4. Check the image resolution by enlarging (zooming) the document view to at least 200 %. With an image resolution of at least 300 ppi, no pixels should be visible. If pixels are still visible, the image resolution is probably too low.

(3)



ADOBE ACROBAT PRO

Output preview in Acrobat Pro

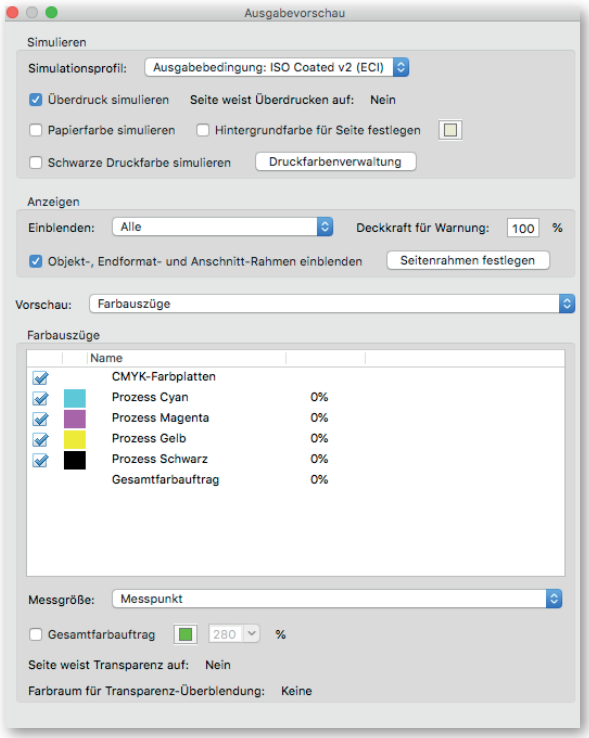
With the Acrobat Pro output preview, you can check the separations (colour separations) of your PDF file for correctness and simulate overprinting. To do this, proceed as described below:

1. Under ‘Tools’, select ‘Print Production’ and open the ‘Output Preview’ (1).
2. Check that only the required colours are present and that overprinting elements are displayed correctly. If you find unwanted colours or overprint settings, correct the original file and export a new PDF file.

Tip:

For better control, you can set the ‘Preview for Overprinting’ in the ‘Preferences’ under ‘Page Display’ to ‘Always’. This means that overprinting elements are always displayed correctly in Acrobat!

1



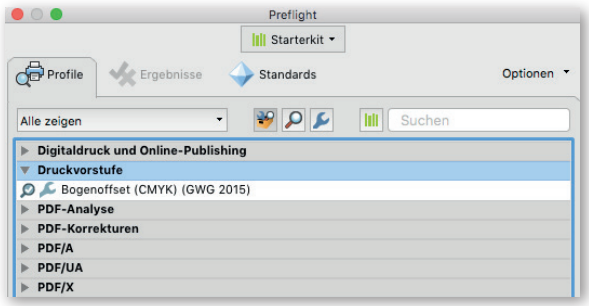
Preflight in Acrobat Pro

In addition to the output preview, Acrobat Pro also has a preflight function that checks your PDF file for printability and corrects it if necessary. The preflight report provides you with detailed information about problems in your PDF. Proceed as described below:

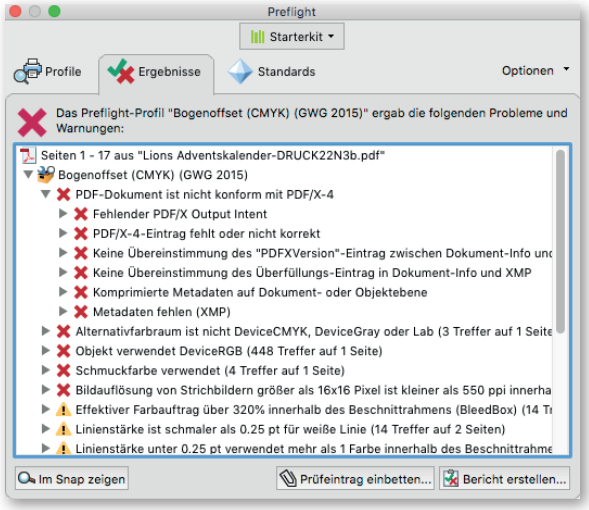
1. Under ‘Tools’, select ‘Print Production’ and open ‘Preflight’.
2. In the ‘Prepress’ area, use the ‘Sheetfed offset (CMYK)’ profile of the ‘GWG’ (Ghent PDF Workgroup) (2).
3. Click on ‘Analyze’ to start the process.
4. Examine the ‘Results’ (3). Serious errors are marked with a red cross, warnings with a yellow caution sign. If you find errors, correct the original file and export a new PDF file. We do not recommend automatic correction by the preflight profile.

   Attention! Not every error reported by the programme causes an actual problem. If you are unsure, order a data check or contact us if you have questions.

2



3



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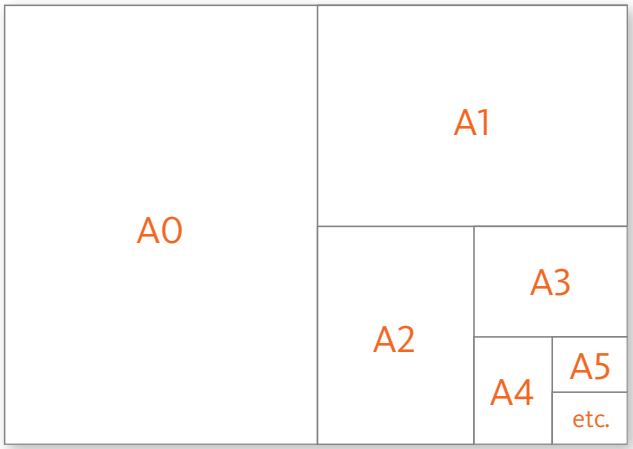
DIN ISO STANDARDS

DIN standards

The German Institute for Standardisation has been defining various standards and units of measurement since 1922. The standardised formats are recognised throughout Germany. There are also country-specific standards that apply, for example, to Europe (EN), the USA (ANSI) and Japan (JIS) or worldwide (ISO).

DIN-A series

The DIN-A series is the most common. It is used for various printed products and refers to formats such as brochures, postcards, letterheads and flyers. The standard was developed by Walter Porstmann. Starting from an area of one square metre (A0), rectangles are formed whose ratio of the short side to the long side remains the same when cut in half. The number indicates how often the original A0 format must be cut or folded in order to obtain the specified size.



DIN-B series

The DIN-B series is based on the B0 format with a size of 1,000 mm x 1,414 mm. DIN B is exactly 1,414 times the size of DIN A.

DIN-C series

The DIN-C series starts at DIN C0 with 917 x 1,297 mm. DIN C lies exactly between the two sizes DIN A and DIN B and describes the size of different envelopes for sending printed products from the DIN A series.

Tip:

You are not bound to the DIN standards for print production. Use custom sizes in the web shop or contact us for a personalised offer. We will be happy to recommend a suitable format for you.

Table overview

DIN-A Series			DIN-B Series			DIN-C Series		
A0	841	x 1,189 mm	B0	1,000	x 1,414 mm	C0	917	x 1,297 mm
A1	594	x 841 mm	B1	707	x 1,000 mm	C1	648	x 917 mm
A2	420	x 594 mm	B2	500	x 707 mm	C2	458	x 648 mm
A3	297	x 420 mm	B3	353	x 500 mm	C3	324	x 458 mm
A4	210	x 297 mm	B4	250	x 353 mm	C4	229	x 324 mm
A5	148	x 210 mm	B5	176	x 250 mm	C5	162	x 229 mm
A6	105	x 148 mm	B6	125	x 176 mm	C6	114	x 162 mm
A7	74	x 105 mm	B7	88	x 125 mm	C7	81	x 114 mm
A8	52	x 74 mm	B8	62	x 88 mm	C8	57	x 81 mm
A9	37	x 52 mm	B9	44	x 62 mm	C9	40	x 57 mm
A10	26	x 37 mm	B10	31	x 44 mm	C10	28	x 40 mm

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INFORMATION

Visit us at our printing centre at Bessemerstrasse 83-91. We look forward to seeing you!

Contact

Buch- und Offsetdruckerei
H. Heenemann GmbH & Co. KG

Bessemerstraße 83–91
12103 Berlin

Phone: (030) 7 53 03 – 0
Fax: (030) 7 53 03 – 131

info@heenemann-druck.de
www.heenemann-druck.de

Questions about web shop products:

Phone: (030) 7 53 03 – 167
shop@heenemann-druck.de

Requests for quotation:

anfrage@heenemann-druck.de

Print data preparation:

Phone: (030) 7 53 03 – 220
druckvorstufe@heenemann-druck.de

How to find us

Thanks to its central location in Berlin-Schöneberg, our print shop is easy to reach from anywhere. Free car parking is available on the company premises. The nearest bus stop (Bessemerstraße) as well as U-Bahn and S-Bahn stations (U Kaiserin-Augusta-Straße, S Priesterweg) are only a few minutes away.