

Print Handbook

Specification of preparation of graphic files for large format printing

LIST OF CONTENTS

1. General remarks	4
2. Basic definitions	4
3. Files preparation	6
4. Preparation of the print for plotter	9
5. Basic materials and their widths	10
6. Graphics preparation	13
7. White color printing	16
8. Placing order	20

1. GENERAL REMARKS

The document defines the technical parameters and method of preparing materials for printing at the Clonex Printing House. It was created in order to familiarize our clients with technical requirements regarding the preparation of large format printing materials. Compliance with it will help satisfy the client's expectations regarding the service and the quality of the product being made, and at the same time will allow to meet the standards of the printing production.

2. BASIC DEFINITIONS

Reference materials

Materials used as a color pattern in the printing process. The reference material may be a sheet accepted by the client or a certified contract proof. The pattern may also be a non-certified proof or a print from an earlier edition, but the color on such a pattern is treated as a proof.

Contract proof

The reference material faithfully simulating the actual effect of the printing process with a given printing technique. The basis for recognizing a proof as a contract proof is its certification.

Bleed

graphics area going beyond the cutting line, defining the net page format.

CMYK refers to the color of the basic inks used in printing:

Cyan
Magenta
Yellow
Black

It is a set of four basic colors of printing inks commonly used in color printing in the printing industry.

What is the meaning of printing parameters defined as: 4 + 4, 4 + 0?

4+4 - full-color two-sided printing

4+0 - one-sided full color printing

Solvent printing – it is solvent-paints printing resistant to weather conditions. They are characterized by high resistance to mechanical damage, abrasion, different atmospheric conditions, extreme temperature differences. Application: advertisement boards, cars, banners, billboards

UV printing – direct printing on a flat or roll substrate and fixed with ultra violet (UV) rays. It is characterized by high color durability. The advantage is the ability to print with white color and a variety of substrates, e.g. plastic, metal, wood, etc.

Sublimation - The print is made with the help of specialized sublimation paints on transfer paper. Then, under high pressure and temperature, it is transferred to the material. Sublimation prints are characterized by very vivid colors, resistance to abrasion, UV radiation. The high advantage of this technology is that it is ecological. Paints used for sublimation are free of solvents, most often they are produced on the basis of water or oil.

3. FILES PREPARATION

In order to provide you with efficient and fast service, please use the following tips when preparing graphics for printing.

In the case of raster graphics, it is recommended to prepare the file in *.tif format (without layers, without masks and alpha channels, compressed using the LZW method). Files should be provided in 1: 1 or 1:10 scale (with information on e-mail). We also accept files in *.jpg format

The resolution of raster files should be determined according to the resolution table below (table 1). In the case of vector graphics, the accepted format is the *.eps file. All vector graphics must be converted into curves and contain only vector elements, without lenses, special effects, gradients and bitmaps. Otherwise, the graphics should be exported to a *.tif file with LZW compression.

We do not accept AI and PNG files

For open files saved in **Corel**, you must:

- change all fonts into curves
- Graphic dimension prepared in 1: 1 scale
- All elements must be placed on the exportable layer and cannot be blocked
- Files should not contain printing marks in the form of registers, printing registration, etc.
- do not use non-standard color palettes and all Pantone colors should be changed to CMYK
- bitmaps must be in the CMYK color profile
- It is recommended that all Outline lines are converted to an object
- For each *.cdr file, preview in *.jpg is required.
- Files in *.cdr format are accepted in version 13.
- All projects (including bitmaps) should be prepared in CMYK mode (8 bits per channel), additional colors (e.g. Pantone) will be automatically converted to the closest one that the output device can get.
- RGB colors should not be used (if a piece containing RGB colors is provided, the final print may be inconsistent with the client's expectations).
- In order to get the right depth of black, give the following values: C: 50 M: 50 Y: 50 K: 100
- Black and white pieces saved in the GRAYSCALE space (with an e-mail message that the printout is to be in black and white tone)

Files description

The description of each file should contain:

- name of the ordering frame
- name of the theme
- name of the material
- size in 1 : 1 scale
- number of pieces

Files with such names should be sent to FTP.

Resolution table (the amount of dpi in which the file should be saved)

x	1m	2m	3m	4m	5m	6m	7m	8m	9m	10m
1m	300dpi	200dpi	150dpi	100dpi	72dpi	72dpi	60dpi	50dpi	40dpi	40dpi
2m	200dpi	150dpi	150dpi	96dpi	72dpi	60dpi	60dpi	50dpi	40dpi	40dpi
3m	150dpi	150dpi	100dpi	80dpi	60dpi	60dpi	50dpi	50dpi	40dpi	40dpi
4m	100dpi	96dpi	80dpi	72dpi	60dpi	50dpi	50dpi	50dpi	40dpi	40dpi
5m	72dpi	72dpi	60dpi	60dpi	50dpi	50dpi	50dpi	40dpi	40dpi	40dpi
6m	72dpi	60dpi	60dpi	50dpi	50dpi	50dpi	50dpi	40dpi	40dpi	40dpi
7m	60dpi	60dpi	50dpi	50dpi	50dpi	50dpi	40dpi	40dpi	40dpi	40dpi
8m	50dpi	50dpi	50dpi	50dpi	40dpi	40dpi	40dpi	40dpi	32dpi	32dpi
9m	40dpi	40dpi	40dpi	40dpi	40dpi	40dpi	40dpi	32dpi	32dpi	32dpi
10m	40dpi	40dpi	40dpi	40dpi	40dpi	40dpi	40dpi	32dpi	32dpi	32dpi

tab. 1

FILES FORMAT

- TIFF Z with LZW compression (without layers, masks and alpha channels, in CMYK mode).
- EPS Fonts converted into curves, without lenses, special effects, gradients and bitmaps.
- JPG No layers, masks and alpha channels.
- CDR All fonts converted into curves, do not use custom color palettes, Pantone colors should be changed to CMYK. The files in the Corel 13 (x3) version require a preview in JPG.

FILE RESOLUTION

The resolution of the file to be printed should be in the range of 10-300 dpi depending on the size of the printout (Table of resolutions).

SENDING FILES FOR PRINTING

FTP Server (after prior e-mail request for FTP) E-mail (up to 20 MB file).

FILES SETTINGS

All projects should be prepared in CMYK mode (8 bits per channel). Files should not contain printing marks in the form of registers, printing registrations, etc. Files should be provided in 1: 1 or 1:10 scale with information on e-mail. In CDR files, all elements must be placed on the exportable layer. For the depth of black, give the following values:
C:50 M:50 Y:50 K:100

FILE NAMES

- Each file description should contain:
- name of the theme
 - name of the material
 - size on a scale of 1 to 1
 - number of pieces

4. PREPARATION OF GRAPHICS FOR PLOTTER

The graphics which will be printed and then cut out on the plotter should be prepared in Corel according to the following guidelines.

Elements cut from foil cannot be smaller than 5mm, if it is a text, its minimum size cannot be smaller than the Arial 32pkt font size.

1. Bleeds

are required in every graphic item that is cut out.

2. Cutting line

must be a hair contour, prepared on a different layer than the graphic, imposed on the graphic.

3. Spaces

between particular elements min. 3mm

4. Size

of the whole sheet should not exceed the dimensions: 130cm width and 150cm height. If the graphic is prepared in a program other than Corel, you should export the graphic itself as a printable file and cutting lines as a vector file in eps format. It is important to mark a common point on the graphics as well as in the eps file (e.g. a small square in one of the corners) so that the plotter cutting lines can be centered exactly to the graphics.

The graphics must be created on a separate layer than the outline.
The graphics must have a bleed of approx. 3mm

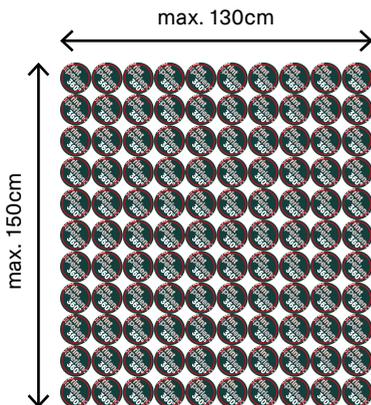
Well-prepared graphics with a 3mm bleed



Poorly prepared graphics that does not have a 3mm bleed



Graphics with a 3mm bleed:



Graphics with a 3mm bleed after cut out on plotter:



5. BASIC MATERIALS AND THEIR WIDTHS

PAPER / FOIL / SOLVENT

Pliki przeznaczone do druku solwentowego w rozdzielczości 720dpi (Mimaki JV5), prosimy przygotowywać o 3cm mniejsze niż szerokość materiału na jakim grafiką będzie drukowana.

BANNER / BLOCKOUT / MESH

When preparing the graphics for banners, grids, blockouts or backlights, considering the width of the materials, the finish (e.g. welds or tunnels) should be taken into account so that the printout can fit completely on the width of the material. In addition, in the case of backlights, the graphics should be 10cm shorter in width than the width of the material.

If the graphics does not fit on the material, please mark when ordering:

- Method of graphics division
- The width of the overlap (on both sides, the overlap only on the right, the overlap only on the left)

Roll materials

Name	Width				
	106cm	137cm	160cm	—	—
Vinyl glossy / mat	106cm	137cm	160cm	—	—
Translucent	106cm	137cm	152cm	—	—
Polimer vinyl & cast vinyl	—	137cm	—	—	—
Transparent vinyl glossy	106cm	137cm	160cm	—	—
Transparent vinyl mat	106cm	137cm	160cm	—	—
OWV	98cm	137cm	152cm	—	—
Whiteback paper 150g	—	127cm	160cm	—	—
Whiteback paper 210g	106cm	137cm	160cm	—	—
Blueback paper	—	125cm	160m	—	—
TYVEK paper	100cm	—	—	—	—
Laminated banner	—	160cm	320cm	—	—
Coated banner	—	160cm	320cm	420cm	500cm
Blockout banner 4/4	160cm	220cm	250cm	320cm	—
Backlight PVC	—	—	327cm	440cm	500cm
Mesh	—	—	320cm	500cm	—
Canvas	—	137cm	152cm	—	—
Rolltex	92cm	127cm	152cm	—	—
Backlight vinyl	—	137cm	—	—	—

Sublimation

Name	Width	
	160cm	320cm
Flag	160cm	320cm
Decor	160cm	320cm
Microbacklight	160cm	310cm
Satin	—	255cm
Non woven	160cm	320cm

Rigid materials

Name	Format
PVC 1mm	1220x3050mm 1530x3050mm 2030x3050mm
PVC 3mm	
PVC 5mm	
PVC 8mm	
PVC 10mm	
Plexi 3mm	2050x3050mm 2050x3050mm 2050x3050mm 2050x3050mm
Plexi 5mm	
Plexi 3mm	
Plexi 5mm	
Pentraprint 0,2mm	1000x1400mm 1000x1400mm 1000x1400mm
Pentraprint 0,5mm	
Pentraprint 0,7mm	
PP / Channel plate 3mm	1400x2000mm
PP / Channel plate 5mm	2000x3000mm
Dibond 3mm	1500x4050mm 2000x4050mm
Dibond 3mm	
Dibond 3mm	
Dibond 3mm	
Kappa 5mm	1000x1400mm
Kappa 5mm	1400x3000mm
Kappa 3mm	700x1000mm
Cardboard 300g	700x1000mm
Cardboard 300g	1000x1400mm
Cardboard 300g	1000x1600mm
Cardboard 300g	1600x2000mm
PVC 1mm	1000x2000mm
PVC 3mm	1220x2440mm
PVC 5mm	1220x3050mm
Hips 0.25mm	1000x2000mm 2050x3050mm
Hips 0.5mm	
Hips 0.75mm	
Hips 1mm	
Hips 1.5mm	
Hips 2mm	
Axprint 0,3mm	1000x1400mm
Axprint 0,5mm	
Axprint 0,8mm	

6. GRAPHICS PREPARATION

MESH & BANNERS

- If the piece is to be cut to the net format, the graphics should be without bleeds and markers.
- The standard finish of the banner and grid is a 3 cm weld and eyelets placed every 50 cm. Please keep a minimum of 4 cm distance of important design elements (logo, text) from the edge of the graphic.
- The printout is to be finished with a tunnel, please specify what the tunnel clearance should be flat after welding and additionally take into account a 3 cm weld. There should be no important parts in such an edge distance.
- The size of the text contained in the graphic should not be less than 1 cm
- The size of the text contained in the graphic should not be less than 1 cm

BLOCKOUT BANNER

- When finishing with eyelets, keep a safe distance of 4 cm from the edge (so that the eyelets do not overlap with the text).
- In the case of pockets finishing, the safe area should be kept as follows: Safe area = flat pocket size + 4 cm (e.g. for a 5 cm pocket, the safe area is 9 cm)
- Blockouts with welds and all tunnels should be prepared for the net format (without bleeds)
- The size of the text contained in the graphic should not be smaller than 1 cm
- Accepted file type: Ti with LZW compression.

METHODS OF FINISHING + PHOTOS OF FINISHING



CLONEX

ROLL-UP

- the file prepared for rollups should have 10cm net added to the graphics at the bottom for the assembly.
- the maximum graphic resolution should not exceed 150 DPI
- all important information, logos should be separated from the edge of the net dimension by 3 cm
- the size of the text contained in the graphic should not be less than 1cm

FOILS, PAPERS AND BLUEBACK

- all graphics with cut should be prepared in the net format (without bleeds). Graphics designed for Citylights (120x180cm) should have a 5mm bleed around.
- BILLBOARD 600cm x 300cm max resolution 50 dpi recommended 45 dpi
- BILLBOARD 504cm x 238cm max resolution 60 dpi w recommended 50 dpi
- the standard division of billboards 600x300cm is 10 boxes
- the standard division of billboards 504x238cm is 6 boxes

ELEGANT FRAME

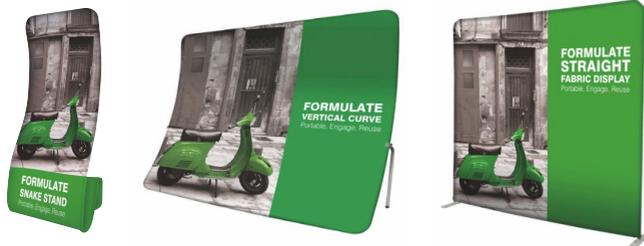
- graphics should be prepared in the net format with a safe area of -5cm around
- when placing an order, please indicate whether the given dimension is the external dimension of the frame or the visible area of the graphic

BEACH FLAGS

- files should be prepared according to the schemes available on the website www.clonex.pl
- we distinguish four beach flag shapes, each of them in four dimensions

TEXTILE EXHIBITION SYSTEMS

- each graphic should be prepared according to the schemes available on the website www.clonex.pl



RIGID MATERIALS

- graphics printed directly on PVC must be provided in net dimension.
- the designs printed on the foil and applied on PVC should be with a bleed of 1 cm around. Files prepared on PVC with double-sided printing must contain a 1cm bleed around.
- graphics printed on flat materials must be prepared in a net dimension
- the milling machine has a maximum working area of 2x3m

GRAPHIC PREPARATION FOR MILLING

The graphics which will be printed and then cut out on the plotter should be prepared in Corel according to the following guidelines.

Elements cut from foil cannot be smaller than 5mm, if it is a text, its minimum size cannot be smaller than the Arial 32pkt font size

1. Bleeds

are required in every graphic item that is cut out.

2. Cutting line

must be a hair contour, prepared on a different layer than the graphic, imposed on the graphic

3. Spaces

between particular elements min. 3mm

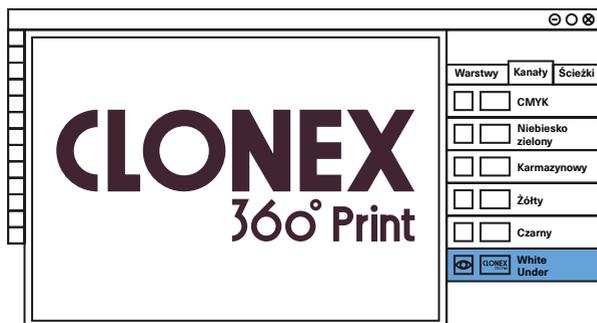
4. Size

of the whole sheet should not exceed the dimensions: 130cm width and 150cm height. If the graphic is prepared in a program other than Corel, you should export the graphic itself as a printable file and cutting lines as a vector file in eps format. It is important to mark a common point on the graphics e as well as in the eps file (e.g. a small square in one of the corners) so that the plotter cutting lines can be centered exactly to the graphics.

7. WHITE COLOR PRINTING

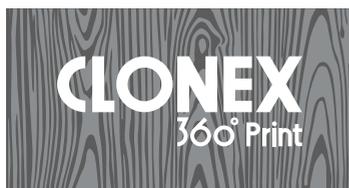
The white color is defined by the Alpha Channel. To add the Alpha Channel, in Photoshop, in the channels tab, click the Create new channel icon in the bottom right corner. Keep in mind that the elements that we want to be printed in white on the Alpha Channel are called black. The Alpha channel should be properly signed depending on whether we want the white color to be applied before or after CMYK colors. All graphics should be saved to a TIFF file with Alpha Channel and LZW compression, 1: 1 scale files, CMYK color profile, all flattened layers. Below are some examples of using white when printing.

1. Print with white color on a colored or colorless foundation.



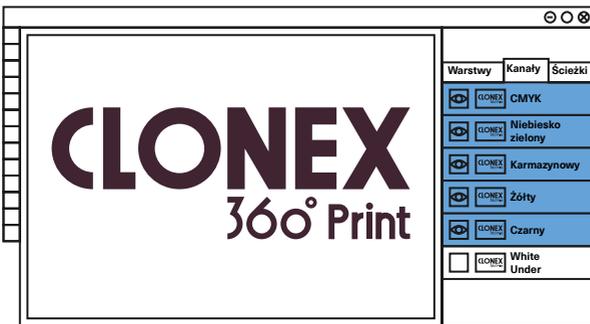
Other channels white, because we print only in white. All CMYK layers are white.

The Alpha channel signed as „White under” will be applied to the substrate before the CMYK.



Print with white color.

2. CMYK color printing, additionally lined with white; printing on a colored or colorless foundation.



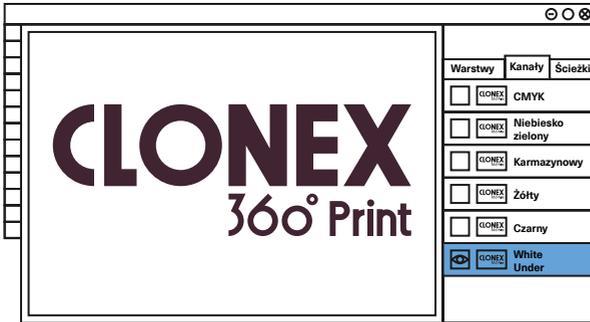
CMYK components according to the colors we want to achieve during printing.



Print without white saturation, CMYK color mixed with the undercoat.

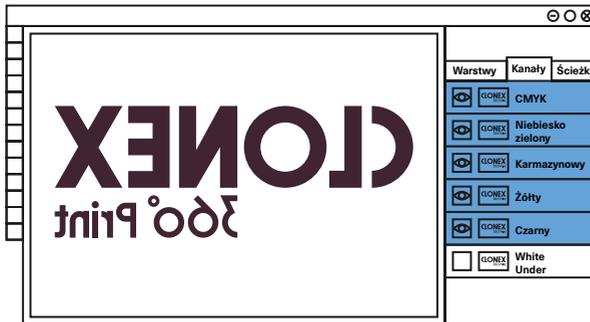


Print with white saturation, CMYK color is saturated, does not mix with the undercoat.



Alpha channel signed as „White under”, white color will be applied to the substrate before CMYK colors, this will result in saturation of CMYK colors with white color so that CMYK colors do not mix with the substrate color

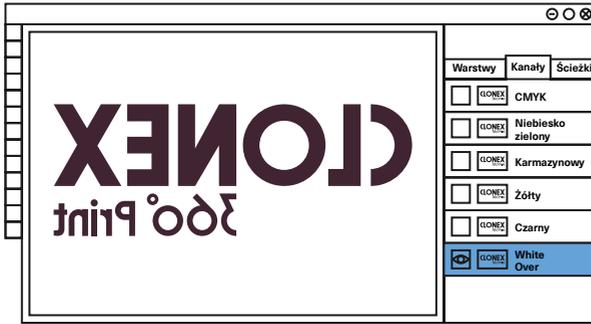
3. Print on a colorless substrate, print in mirror image from the back side of the material, additionally lined with white to make the CMYK colors saturated.



CMYK components according to the colors we want to achieve during printing, mirror-reflected graphics because the transparent material is printed on the back side.



Print from the back of a colorless plexiglass without white color boost, CMYK colors are not saturated.



Alpha channel signed as „White over” white color will be applied in CMYK colors, this will cause the CMYK color to be boosted with white, which will make the CMYK colors saturated.



Overprint on the back of colorless plexiglass, covered with white color, CMYK colors are saturated.

The description of each file should contain:

- Name of the ordering firm
- Name of the theme
- Name of the material
- Size in 1 : 1 scale
- Number of pieces

Exemplary file description::

- Clonex_example_PCV3mm_300x200cm_4pcs

Files with such names should be sent to FTP. You can get login details by contacting your guardian.

8. PLACING ORDER

Print order should contain:

- Name of the orderer
- Name of the file and the exact location of the file
- Piece format (net and gross if necessary)
- Number of copies
- Name of material
- Finishing method (e.g. cutting, tunnels, lamination, etc.)
- Agreed or expected completion date
- Data for issuing an invoice

Print orders prepared in this way should be sent by e-mail

Please attach a file with print preview to the order.

Production files should be placed directly on our FTP server.

Digital materials can be delivered via the Internet network,
via an FTP server.

Files should be placed in a folder corresponding to the name
of the ordering company!

The time of delivery of digital materials is considered as
the time of delivery of complete materials, not requiring
improvement. Failure to meet the deadline for delivery
of digital materials may result in delayed shipment of
the finished product, for which the Printing House is not
responsible. Orders are accepted only electronically.

ADDITIONAL NOTES

Clonex is not reliable or responsible for production delays resulting from changes made by the client after the order is accepted for execution. Any changes made by phone must be reported to the Contractor also in an email form.

The Contractor is not responsible for the content, the quality of the files prepared and any typing or color errors contained in them. It is the client's responsibility to check the files and deliver them in a flawless form.

Incorrectly filled in order or graphics prepared in a manner inconsistent with the guidelines shall release the Printing House from responsibility for erroneously performed work. In case of doubt, please contact us.

CLONEX

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