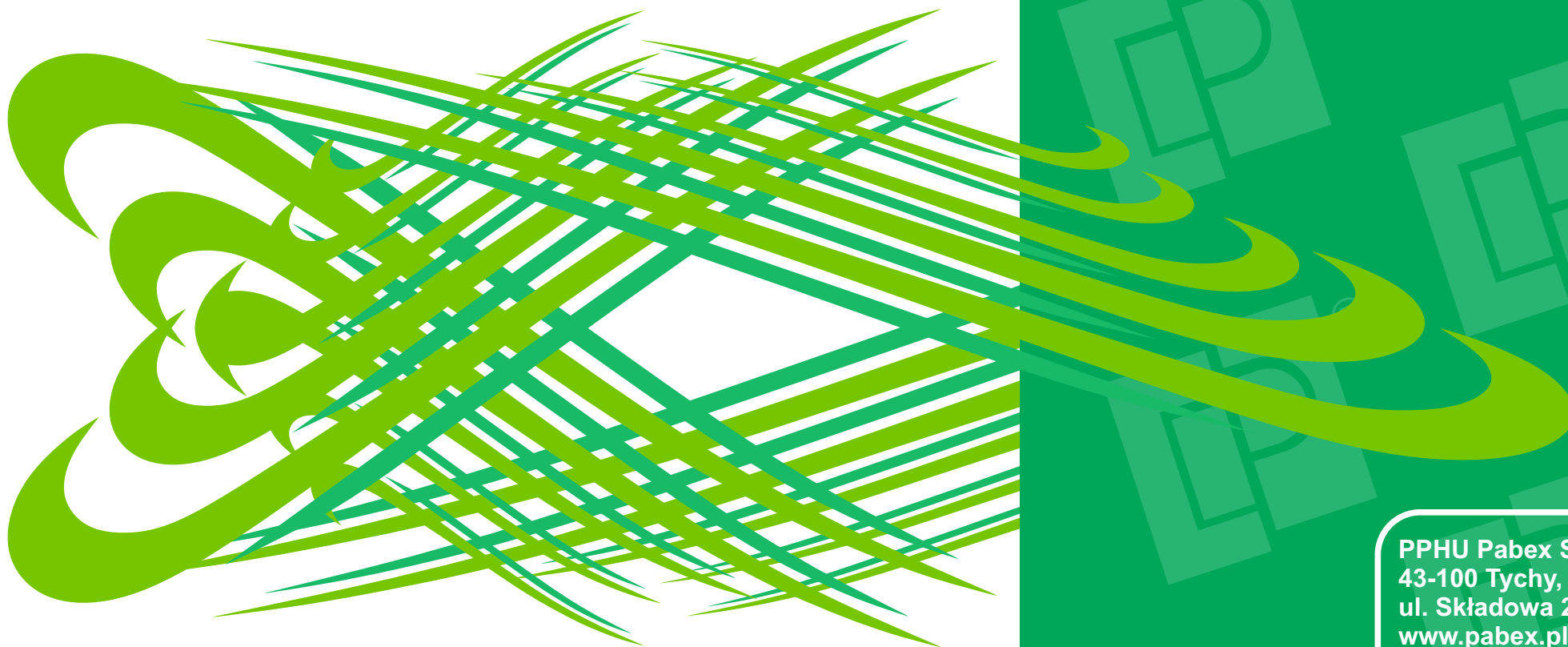


grafika@pabex.pl

*The requirements of graphics section
how to deliver and to prepare
of graphics files*



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Pabex company is equipped with two printing machines of a leading brand Soma and state-of-art facilities. The first printing machine **Soma MIDI is an eight coloured printing machine** which can print the area of a maximum width of 820 mm.

In 2014 the second printing machine was purchased; it is a **10 coloured machine Soma IMPERIA** of the maximum orienting width 1050 mm. IMPERIA is a state-of-art printing machine with a possibility of printing up to 450 m/min and which allows for the eye-catching solutions in the field of printing films. Thanks to the **both-side printing system**, the machine is equipped with, it is possible to apply in chosen areas different coatings, decorative varnishes (with matt or gloss effect) with a very big accuracy in one printing process.

We co-operate with the best printing plates producers from Poland and from abroad. The printing plates are produced in accordance with the newest technology of a flat top dot **Kodak Flexcel NX** as well as **DuPont™ Cyrel® DigiFlow**. These technologies are characterized by a small screen dot gain, high colour saturation and a high quality of obtained gradients. Our films are printed in a high resolution until **151 lpi** as a result of which a small condensed dot is less visible.

Our printing dept. is equipped with a set of **raster rollers GTT** patented by Apex company thanks to which we are able to achieve better printing results than using conventional raster rollers. Using the above mentioned rollers gives a printer more possibilities as the spread of the percentage areas of printing can be printed with the use of smaller number of rollers simultaneously improving the quality of the print.

Arguments for cooperation with Pabex company:

A quick, easy contact and technical advice:

- quick response – a group of five graphic designers and a printing technologist as well as five laminate technologists,
- individual approach to every graphic design and technological support – close communication between printing dept., printing technology section, laminate technology section and printing plates producer.

Used technologies:

- basing on the newest flexo – technologies such as flexo – Kodak Flexcel NX, DuPont™ Cyrel® DigiFlow – flat top dot,
- a high-linature printing 151 lpi,
- the resolution of irradiation of plates 4000 dpi.

Machine parameters:

- printing up to 10 colours,
 - printing the width of the web up to 1050 mm,
 - a high colour saturation,
 - a big contrast between edge of the objects thanks to the use of such technologies as: “pattering”, “micro cell”, “digicap”,
 - ensuring tonal transitions fidelity from 0 to 100%,
 - a small screen dot gain - colour fidelity of graphic designers' ideas,
 - a more difficult graphic effect achieved more easily,
 - fitting tiny elements on a very high level:
- unique both side printing system and a system of applying decorative varnishes and technological coatings in one run.

Safety:

- before printing it is required to accept a „soft proof” (in pdf format), then to accept „proof” on paper- it is a kind of a benchmark for colour fidelity on the film,
- the possibility of a personal customer's acceptance in terms of the content and colours during printing of a graphic design for the first time.

In our **flexographic department**, there is **an inspection and measurement laboratory** which is equipped with the newest devices designed for the control of the quality of printing plates, the quality of the film after printing and for colour testing.

We make a technical analysis of plates preparation on a regular basis as well as we introduce new technological matters like:

- testing decorative varnishes,
- a control of the quality of ink coverage,
- a control of technological varnishes.

PABEX



DU PONT
DuPont™ Cyrel® DigiFlow
Flexo HD

Kodak

DU PONT

Kodak

DU PONT

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■ The acceptable programmes (newest versions):

- Adobe Illustrator
- Adobe Photoshop
- Corel Draw
- Adobe InDesign

■ Ways of delivering the graphic projects:

- via email (max. size 20 MB)
- via FTP (it can be a client server or ours):
ftp.pabex.pl
(you can obtain login and password
if you contact through grafika@pabex.pl)
- on DVD/CD

■ The maximum number of colours to print:

■ 10

■ The way of reproducing colours of the design:

- a print with process inks (CMYK)
- a print with Pantone (spot color)
- a print with process inks + Pantone

■ The way of combining elements in a project:

- a photo
- a vector graphic
- a vector graphic + photo

■ Font

- If a graphic motif contains texts as fonts,
please send them
- We kindly ask you for changing the fonts
on outlines (select all & convert to path)
- The minimum font size is 4 points – printed
- The minimum font size in the background is 6 points



*Questions
and consultations?*

Graphic Department
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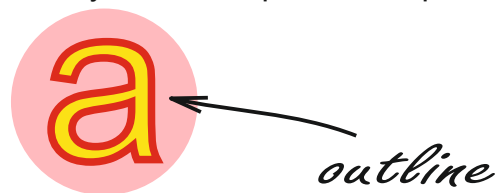
■ Images and bitmaps

We kindly request you to proceed always with general requirements of PABEX regarding the files that will be sent to Pabex, our requirements are as follows:

- Elements that are not vectors should be sent as separate files
- Psd. files should include layers, channels and sections.
- Delivered photo images should have resolution of **300 dpi (not scaled bitmaps, only 1:1 versions)**.
- Please do not edit text (typesetting) in Photoshop or other bitmaps kind of programs (please edit text in vector graphic version).
- Maximal Ink Coverage (Total Ink Coverage) varies from **270% to 320 %**
- With using the warm colors - please use CYAN color carefully (possible blue effect)
- With using cold colors - please use MAGENTA color carefully (possible red effect)

■ Other elements

- Free standing lines size: min. **0,1–0,2 mm**
 - Negative lines size: min. **0,2–0,3 mm**
- 
- It is not recommended to create texts in counterpunch with using more than one color.
 - Texts with not printed color (with picked out colors) request minimal width of line ca. **0,4 mm** – bright letters on dark background.
 - In case of using dark letters, they should be printed or spread.



- Gain level of dots **1-2%** is increasing to **9-13%**. This information should be considered during using for example gradients, with gradient from 0% the visible strip can occur (so-called break off effect).
- Metallic colors (gold/silver) cannot be rastered. These colors must be applied as a text or uniform color background only. They cannot be combined with CMYK colors. Other colors can be rastered and/ or combined with CMYK colors.



*Questions
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☐ Gradients

- ☐ The smallest dot that can be etched onto a flexographic printing plate may be as small as 2%, but **may gain to as much as 12%** on press due to the nature of the photopolymer plate material and the printing process. This effect is most noticeable in gradients that are intended to have a soft gradation to 0%, which will stop gradating below 12% **and will end in a hard line** where the gradient drops to 0%

GRADIENTS ON FILE



Linear gradient, 100% - 0%



Radial gradient, 75% - 0%

GRADIENTS ON PRESS



Linear gradient, 100% - minimal dot



Radial gradient, 75% - minimal dot

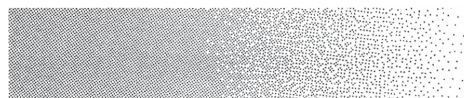
- ☐ Depending on the design, a combination of **conventional and stochastic screening** may be utilized. Rather than the dots becoming smaller and smaller, after a certain point, the dots are printed farther and farther apart, in a random pattern. This method can result in a grainy appearance, however, so it is not recommended for all designs.

Please note: the gradients below do not reflect the same values or line screens. They are to be used for comparison of the dot pattern at the lighter end of the gradients only.

Example of classic screening



Example of combination classic/
stochastic screening



*Questions
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Laboratory

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- A final trial print (Profiled Contract Digital Proof)
 - a digital proof GMG with raster points simulation
 - is fulfilled with every graphic motif and is essential to start the production of photo polymer plates.

- **Bar codes:**

The black lines should be situated along the movement of the film – **horizontal**. The vertical (ladder) position of a bar code is acceptable, however, it has a negative influence on the quality assessment measured with bar code validator. If a client puts the EAN code in the cross-slide position of the film, he takes a responsibility of its discrepancy with bar codes quality norms ANSI/ISO.

The minimal size of a bar code is 80%, the maximal size is 120%. If a size of it is inconsistent with the norms and a client does not approve a change in design connected with bar code change, he takes a responsibility of a validation.

You can read more about bare codes on: <http://www.gs1pl.org>



*Questions
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