



ART REQUIREMENTS FOR FLEXO

1. KNOWLEDGE OF THE PRINTING PROCESS

- A. Ability to reproduce all perceivable colors is limited.
- B. Objective of color printing is to achieve the best color reproduction possible under given conditions.
- C. Variables affecting color reproduction:
 - 1. Printing press design and condition, number of available printing stations.
 - 2. Ink (solvent, water base, U.V., pigment strength and so on.)
 - 3. Ink delivery system (anilox roll, Dr. blade, etc.)
 - 4. Separation negatives
 - 5. Printing Plates
 - 6. Substrate
 - 7. Coatings or laminations
 - 8. Craftsmanship
 - 9. Viewing Conditions
- D. Ability to print in register varies from press to press or printer to printer.
- E. Understand the need for color trapping and consider it when creating the design.
- F. Consider that a good design that is reproducible serves the client's needs better than an aesthetically exceptional design that is beyond the capabilities of the particular printing process to be used.

Excellence in Packaging Prepress



ART REQUIREMENTS FOR FLEXO (CON'T)

2. COLOR - GENERAL CONDITIONS

- A. Determine the number of colors available. Presses vary in the number of printing stations. A printer producing high quality four color process graphics typically will have seven or eight printing stations. Some will have less, others more. Wide web flexo presses used in producing flexible packaging, folding cartons, or pre-printed linerboard may have fewer print stations than narrow web label presses. In any case the last printing station is often used to apply a protective coating. Generally, it is good practice to separate process black copy from line copy (type, rules, UPCs etc.). Therefore a Seven-color press can print an apparent five-color design consisting of yellow, magenta, cyan, black (process black + line black), one spot color and varnish.
- B. When using colors other than process, avoid like value color traps with colors of contrasting hues, such as PMS 151 orange and PMS 320 blue-green. The trap between these two colors will be obvious and will diminish the effectiveness of the design. Instead try to choose colors so that light hues trap under darker ones, such as PMS 149 orange under PMS 322 blue-green, or PMS 291 blue under Reflex blue.
- C. Avoid making blends of two or more spot colors of complimentary hues. The resulting mix of color will be muddy when printed on press.

Excellence in Packaging Prepress



ART REQUIREMENTS FOR FLEXO (CON'T)

3. GRAPHICS

- | | |
|---|-----------|
| A. Typical Minimum trap. <i>It is best to allow the printer's prepress supplier to apply traps.</i> | .012" |
| B. Minimum line weight for graphic elements. | |
| Positive Copy | .008" |
| Reverse Copy | .012" |
| <i>Avoid script type or type with fine serifs when printing in reverse.</i> | |
| C. Typical color-to-color register tolerance. | + .012" |
| D. Minimum weight for printed border to register to die cut. | .125" |
| E. Minimum printed image bleed beyond die cut. | .063" |
| F. Typical line screen
(varies from 85 to 200) | 1 |
| G. *Minimum highlight dot. | 3% |
| H. *Vignette (gradations) range | 3% - 100% |
| I. Typical bar code bar width reduction | - .002" |
| J. Avoid reversing type from four-color process. When doing so outline the reverse type with a black line (or other dark color) at least .010" thick to help the type remain uncontaminated by misregister. | |
| K. Avoid creating fine lines or type from multiple screen tints (misregister). | |
| L. Avoid reversing fine lines or type from multiple screen tints (misregister). | |

*It is safe to assume 3%. With the proper anilox rolls, prepress techniques and plates it is possible to produce finer dots. How fine the dots actually print will vary from press to press. Anticipate visible highlight dot gain.

Excellence in Packaging Prepress



ART REQUIREMENTS FOR FLEXO (CON'T)

- M. Avoid stopping a vignette in the middle of an area. The 3% minimum dot in the plate will probably print at 5 - 10% resulting a harsh or dirty edge. Try to carry the vignette all the way to the end of the label or hide the end of the vignette with other graphic elements.
- N. Any "violators" such as NEW! banners should be on a layer so that the base art is "clean" and complete for future revisions.
- O. Illustrations should be on a flexible base to permit them to be wrapped around a scanner drum for preparing separations. Illustrations on rigid board will require a transparency in order to be scanned.
- P. Digital color prints with any special instructions noted on them must be supplied to the separator or printer along with electronic art media. This will help expedite quotes and production of product.
- Q. A printed document should accompany the disk or tape describing the label, bag, or carton size, the file names to be processed, the software type(s) and version of the software used to create the design.
- R. Include all screen and printer fonts.
- S. Die lines should be on a separate file with center marks corresponding exactly to center marks on the graphic design. Center marks are recommended.
- T. The design should be made in such a way that all type and graphic elements can be moved independently.

Excellence in Packaging Prepress



ART REQUIREMENTS FOR FLEXO (CON'T)

U. Regarding process color our experience is that the best results are achieved by allowing the separator to produce the separations by scanning the original illustration or transparency. The designer should include a low-resolution scan for position only. If the designer insists on supplying electronic scans in lieu of original illustrations or transparencies the following suggestions should be followed.

- Save as Photoshop format.
- Include all selections and paths.
- Supply the files at 100% size and at 300 pixels per inch.
- Use CMYK rather than RGB.
- Do not use under color removal (UCR) or gray component replacement (GCR). These techniques can be applied where appropriate by the separator.

Excellence in Packaging Prepress