

### **GENERAL INFORMATION**

The following specifications apply to the creation of label artwork and submission of corresponding film for use in Smart Digi-Media's screen printing process. Customer supplied film and artwork must comply with the specifications listed below to ensure acceptable print quality and quoted delivery date. Our screen printing process is designed to reproduce both line art and halftone images using the Pantone Matching System and four color process techniques. Smart Digi-Media's disc printing method can accommodate four process colors over a white background or up to five PMS colors. For specialty services such as high resolution, please contact your customer service representative

### **LABEL ARTWORK INFORMATION FORMS**

Include a corresponding label Artwork information form along with your film or electronic media.

### **REGISTRATION MARKS**

The use of registration marks for all customers supplied artwork is required. Four registration marks are required. Each positioned 3.5 inches from the center of the label art image, at 90 degrees opposed. Line thickness of registration marks should be ¼ point maximum. Preferred location and format for registration marks are graphically depicted in Smart Digi-Media's Standard and Edge-to-Edge Disc Label Specifications.

### **DIMENSIONAL REQUIREMENTS**

All artwork must be contained within the boundaries provided in Smart Digi-Media Disc Label Specifications Diagrams.

### **IN-HOUSE GRAPHIC SERVICES**

For optimum quality, Smart Digi-Media prefers to produce it's own film fro customer supplied artwork in electronic file, refer to our Label Artwork Electronic File Specifications. Artwork Requirements:

Line Art Specifications:

## **COLOR MATCHING**

Smart Digi-Media uses ultraviolet light-curable inks and can color match based on the Pantone Matching System including pastel, fluorescent and metallic colors. Select Pantone colors for printing on coated stock only. Smart Digi-Media will match the selected Pantone color to within ½ shade. Custom color matching is also available; please consult with your Smart Digi-Media customer service representative for details.

Special Note: When using edge-to-edge label printing, a slight color shift may occur in the center ring (hub) of the disc due to the lack of a reflective coating in the area.

## **OVERPRINTING AND TRAPPING**

In multicolored artwork, the screen printing process requires a small, yet specified amount of overlapping between adjoining colors in order to ensure proper registration. In general, knockout (or drop-out) any color that will be over-printed by another color and provide at least ¼ point trap or overlap to ensure adequate registration during printing. Due to the transparent nature of UV inks, overprinting of colors (one directly over another) must be avoided to ensure proper color match. Although this method is easier to register than trapping, light colors printed over a darker background usually change. Black is the exception to this rule, and should be selected when fine line work or text (which cannot be effectively knocked-out and trapped) needs to be printed over another color.

Minimum Line Width:

0.15mm (-1/2 point) and 0.30mm reverse (-1 point).

Minimum Text Size:

6 points (7 points reserve). Text must also comply with the minimum line width specification to be legibly reproduced.

## **HALFTONE, SCREEN TINT AND VIGNETTE ARTWORK SPECIFICATIONS**

### **Color Matching:**

Halftones and screen tints can be reproduced in most PMS colors offered for line art reproduction, however, dot density variation may affect color matching.

### **Minimum Text Size and Line Width:**

The Four Color Process Artwork Specifications (listed below) must be met, especially in highlight areas, where there is low dot density, to ensure legibility.

### **Dot Requirements:**

The dot density of screen tints and vignettes should be limited between 29% and 80% and should utilize an elliptical dot at not more than 100 lines per inch with a screen angle of 45 degrees.

For halftone images, artwork and film should be compensated for dot gain/loss per the four color process guidelines listed on the following page.

### **Vignettes:**

Due to the reproduction characteristics of screen printing the use vignettes in your design is discouraged.

## **FOUR COLOR PROCESS ARTWORK SPECIFICATIONS**

### **White Background Requirements:**

To ensure an accurate color match to your proof, process colors must be printed over a white background color. You may choose to print directly onto the disc, however, colors will tend to appear slightly faded when printed on the silverized disc surface. The submitting film, include a white background film, fitting your image, or clearly specify that the white background be to be omitted.

### **Minimum Line Width:**

0.30mm (-1 point)

### **Minimum Text Size:**

6 points. Text must also comply with the minimum line width specification to be legibly reproduced.

**Process Color Separations:**

Smart Digi-Media provides high-quality color separation and film production services which are specially optimized for its CD label printing process. In-house generation of color separations from customer supplied artwork provided in electronic file format is the preferred method in order to minimize corrections and their associated delays. Please refer to the Electronic File Separations section of this guide for further instructions regarding submission of artwork in electronic format.

**Proofing:**

A contract proof (Chromalin, MatchPrint, Fujiproof, etc.) manufactured from the supplied film must be provided by the customer to assist Smart Digi-Media in accurately reproducing your four color process image. Smart Digi-Media can manufacture a proof, at the customer's expense, if one is not supplied.

<b>GENERAL INFORMATION</b>
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**Film Type:**

Positive, right reading, emulsion up film with a transmission density of 3.5 minimums.

**Dimensional Requirements:**

Film size must 8"X8" minimum. All artwork must contained within the boundaries provide in Smart Digi-Media's Disc Label Specification Diagrams.

**Four Color Process Films:**

Screen ruling: 100 lines per inch.

Screen angles (degrees): y=0, C=15, M=75, K=135

Gray Component Replacement (GCR): NOT RECOMMENDED.

UCR: Total Link Limit 320%; Black Ink Limit 75%

Dot shaped: Elliptical (hard dot required).

**Dot Gain/Loss Compensation:**

For optimum reproductions of your artwork, color separations must compensate for the dot gain/loss of our printing process as follow:

Film dot %: 6 10 20 30 40 50 60 70 80 90 95 97

Printed dot %: 0 6 15 25 35 45 55 72 82 92 96 100

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<b>FILM IDENTIFICATION</b>
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A separate sheet of film, identified with the following information, is required for each color in multicolor project.

- Catalog or other unique project reference number.
- The correct color to be used (PMS#, process color, etc.)
- Color printing order (e.g., 1 or 4, 2 of 4, etc.)

**Film Handling:**

Submitted film must not be scratched, bent or otherwise damaged. Each film must be separately slip sheeted and secured for protection. Touch up or opaque must be applied on the side opposite to the emulsion.