



## Technical Specifications & Color Reproduction Guidelines

In order to ensure the best possible duplication of all full color reproduction it is necessary to generate the separations to the following specifications. Michigan Web Press cannot be responsible for the quality of reproduction of any four color process work from separations that are not made according to these specifications.

**Screen Ruling:** 100 Line Screen.

**Type Size Minimum:** For readability and clarity, use 6 point type or greater.

**Text:** Color text should be 10 point or greater and contain only two of the process colors (CMYK), whenever possible, to provide you with the best possible quality and registration on press. Reverse type on a tinted background should be 10 point or greater on a background containing at least a 60% tone value. Type reversing out of a 4-color background should be avoided whenever possible. We recommend that you do not use serif fonts when reversing type.

Black and white pictures should be grayscale mode and be adjusted with regard to the following tonal ranges.

Highlight	4%
Midtone	35-38%
Shadow	93%

Anything greater than 90% will print solid. Material should compensate for a 18-23% dot gain in a 50% dot area.

Color pictures and graphics should be CMYK (process colors). Pixel based pictures and graphics should be at least 200 dpi. Bitmap art should be no less than 600 dpi. (1,100 to 1,200 is preferred). Color images should be adjusted using the following parameters as a guide.

	<u>Highlights</u>	<u>Midtone</u>	<u>Shadow</u>
Cyan	4%	38%	56%
Magenta	3%	30%	49%
Yellow	3%	30%	49%
Black	0%	2%	90%

**Dot gain averages:** The dot gain in a 50% tint area.

Cyan	19%
Magenta	19%
Yellow	17%
Black	15%

**Ink Saturation:** Total area coverage maximum 240% to 260% with one solid. Secondary color not to exceed 75%. Recommended screen tint minimum 10%-20% and maximum 70%-80%. A 75% screen tint will print solid. The combined screen tints not to exceed 260%.

**Target Ink Densities:** Cyan .90, Magenta .90, Yellow .85, Black 1.05. (Subtract 3-5 points for dryback measurement)

**Color Settings:** SWOP Newsprint default with medium GCR should be used if available. Medium GCR should be used in conjunction with ink densities to reduce overall ink saturation.

**Proofing:** We will not accept digital proofing for matching color reproduction. Four color materials are proofed in house to provide a visual guide to the pressman.

**Color Sequence for Printing:** Cyan, Magenta, Yellow, Black. (CMYK)