

BADGE CONSTRUCTION GUIDELINES

OVERVIEW:

This guideline provides Control Modules recommendation for badge construction and printing by outside vendors. This is not meant as a comprehensive specification on the abilities of CMI's readers but as a guideline which will lead to exceptionally high first read rates. This guideline pertains to the printing of Code 3 of 9 and Interleaved 2 of 5 bar codes.

PHYSICAL SPECIFICATIONS:

- 1.) The Maximum badge thickness shall be no more than .045"
- 2.) The Laminate covering the bar code must be no thicker than .010" and transparent to light in the 600 to 920 nanometer wavelength range. The external surface of the material may have a matte finish.

PRINTING SPECIFICATIONS:

- 1.) The print contrast ratio (PCR) of the bar-code should not be greater then .75 for light in the 600 to 920 nanometer wavelength range
- 2.) The minimum width of the narrow barcode element should be .010"
- 3.) The ration of wide to narrow bar-code elements depends on the bar code. For Interleaved 2 of 5 and code 3 of 9, the ratio should be in the range of 2.2:1 to 3:1
- 4.) A quiet zone of at least 25x or twenty five times the width of the narrow element is required on each end of the bar code. There can be no transitions in this area as stock to stock seam, the edge of a label or the beginning of a blocking pattern.
- 5.) The bar-code height should be at least .250" high, typically this dimension is .500"
- 6.) The bar code should be located such that it is parallel to one side of the card and the center of the code is .500" from the edge.
- 7.) A high quality printing method should be used which will minimize bar element imperfections such as voids and smears

