

BARCODE & QR CODE REQUIREMENTS

General Barcode Information

Magnification

- 80% magnification or above is optimal
 - Barcode should be a minimum of approximately 0.75" when measured from bar to bar
- 60% - 79% is not advised, but most (not all) barcodes will scan between this range.
- We can not guarantee barcodes with a magnification lower than 60% will scan

Barwidth Reduction

- Optimal barwidth reduction should be set at 60 – 80 micron (0.06mm – 0.08mm)

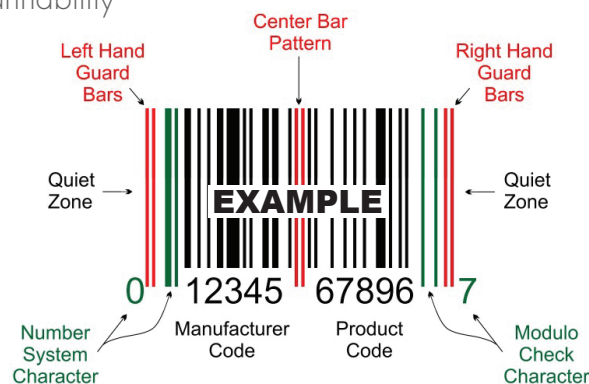
Quiet Zone (white space to the left and right sides of the outermost bars)

- The quiet zone should be a minimum of 2mm on each side

Color

- A black (100%K) barcode on a white background is optimal
- A solid dark color barcode that has a high contrast to the white or very light solid background is acceptable. (Example: 1 spot color in Flexo Printing)
 - Should not be a build of a color (Should not be comprised of combined percentages of CMYK)
 - Should not be created using the RGB color space
 - Images, patterns, etc. instead of a white or solid light color behind a barcode may hinder scannability

Components of a common
UPC-A Barcode



Additional Requirements for Barcodes Placed on Shrink Sleeves

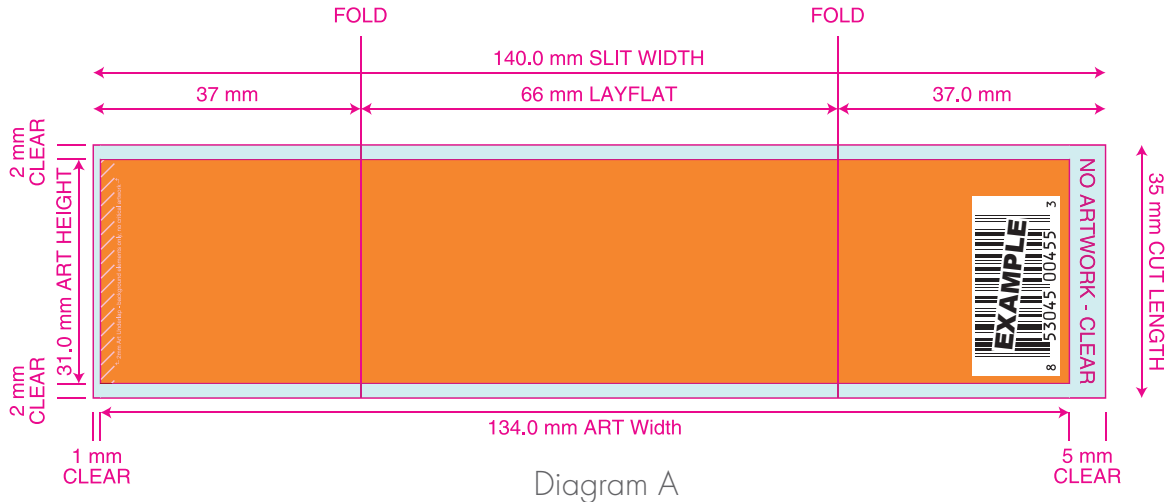
Orientation

- Barcodes should always be rotated so that the bars of the code are horizontal on the sleeve. This will help eliminate scanning errors caused by distortion once the sleeve is shrunk on the container. (See Diagram A on page 2, showing a typical shrink sleeve template with the barcode in the preferred orientation placed parallel to the cut length direction.)

Placement/Location

- It is recommended that barcodes be placed on the least curved portion of the container. A barcode that is located on the curved areas of a container may not scan correctly.
- Seam location is also important when deciding on the barcode's placement. Positioning the code too close to the seam can affect scannability.

Additional Requirements for Barcodes Placed on Shrink Sleeves (continued)



General QR Code Information

Size

- A minimum size of 0.8" x 0.8" is recommended

Color

- For optimal performance, the following is recommended
 - A black (100%K) QR code on a white background
 - Should not be a build of a color (Should not be comprised of combined percentages of CMYK)
 - Should not be created using the RGB color space
 - Images, patterns, etc. instead of a white or solid light color behind a barcode may hinder scannability

Quiet Zone

- A quiet zone of a minimum of 2mm on all sides of the QR Code is recommended

Placement/Location

- QR Codes should not be used on curves. While it is possible for a QR Code to read properly on a curve if it is used at a small enough size, these should never be used on tight mandril (narrow/slender tube) containers.

