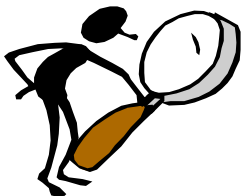

Producing a scannable barcode



Key Steps to Consider

1. Colour – Symbol Contrast



2. Bar Code Size – Magnification



3. Light Margin Area (LMA) - Quiet Zones

4. Location (where to place)



Solid Colour and Contrast



Choosing bar code colours

- Contrast is needed... bars should appear "black" and spaces "white" to the scanner (red light illumination ??)
- Bars may be black, blue, green – cold colours
- Background may be white, red, yellow, orange

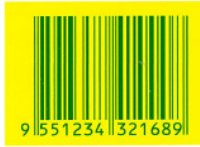
BAR CODES CAN SCAN



Blue on White



Green on White



Green on Yellow



Green on Orange



Green on Red



Blue on Yellow



Blue on Orange



Blue on Red



Black on Orange

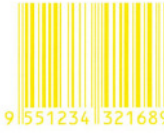


Black on Red



The Global Language of Business

BAR CODES CANNOT SCAN



Yellow on White



Orange on White



Red on White



Light Brown on White



Gold on White



Red on Gold



Black on Gold



Black on Green



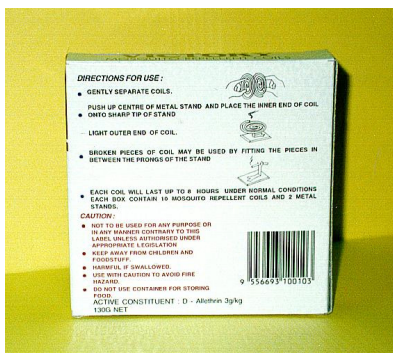
Black on Blue



Black on Dark Brown

7

Colour - Symbol Contrast



Common combination of black bars on white background

Black bars on yellow space (utilising yellow background of product's packaging)



Colour - Symbol Contrast

White space on translucent green (hair gel) is not scannable

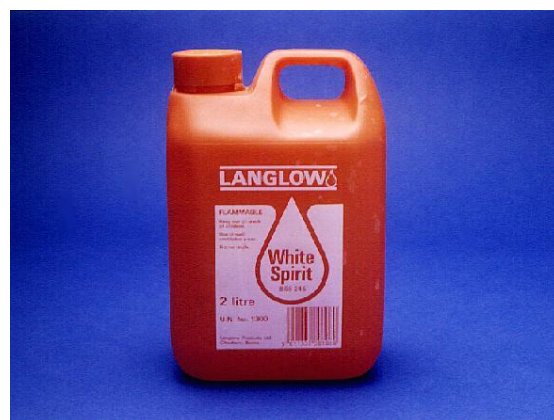


Black bars on solid white for space on transparent can

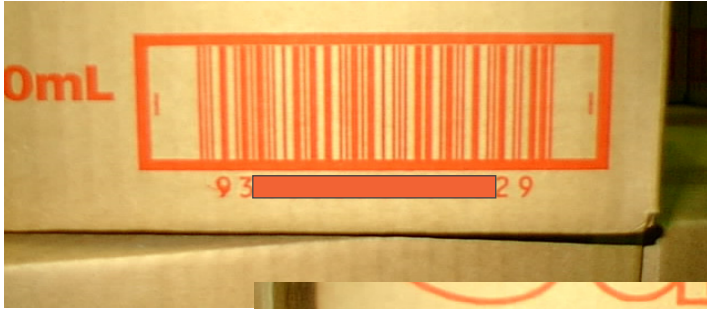
Colour - Symbol Contrast



Metallic colours are not recommended for bars or spaces



Red is for space NOT bars



Human can see red..



Scanners do not!!!



Size

Size

Size

Size

Size

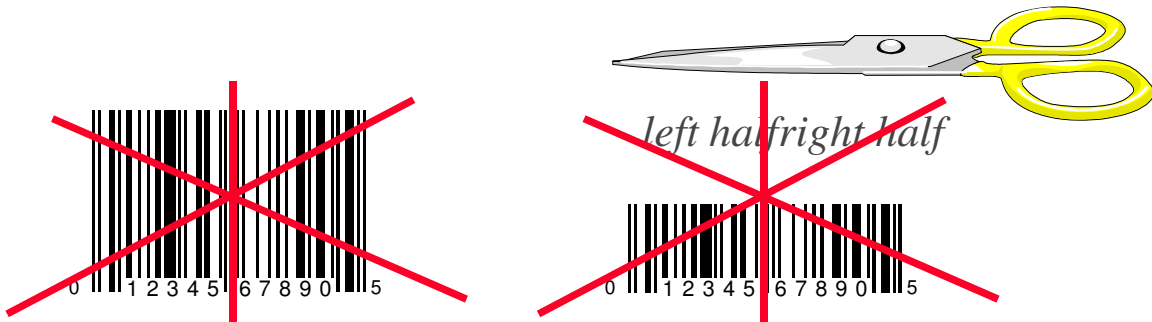
Size



Size

Symbol Truncation

- Truncation limits POS scanning effectiveness
- Shorter symbol reduce the opportunity to get a good scan
- Do NOT truncate (shorten height).
- Only truncate when there is not room for full symbol height



Size



← Human Readable
Character in OCR-B

- EAN-13 bar code symbol is used on both the retail and non-retail/transportation units.
- Magnification limits for retail unit is from 80% to 200%.
- Height should be proportional to magnification of the bar code symbol.

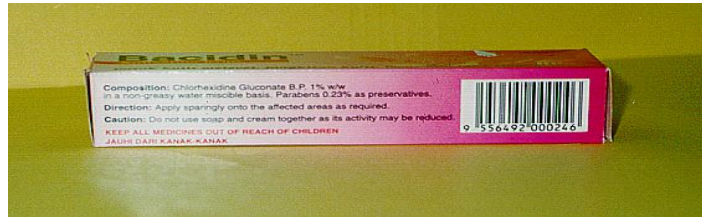
Refer: Overall Dimensions of EAN-13 & EAN-8 Bar Codes Table, or Size Gauge

Size

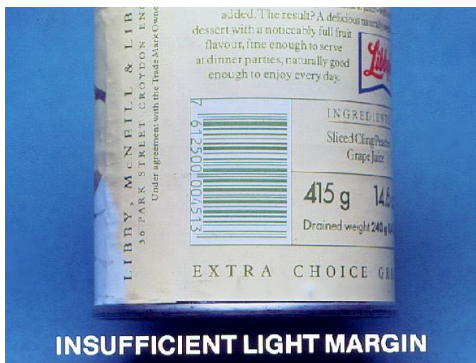


EAN-8 Symbol for space constraint packaging

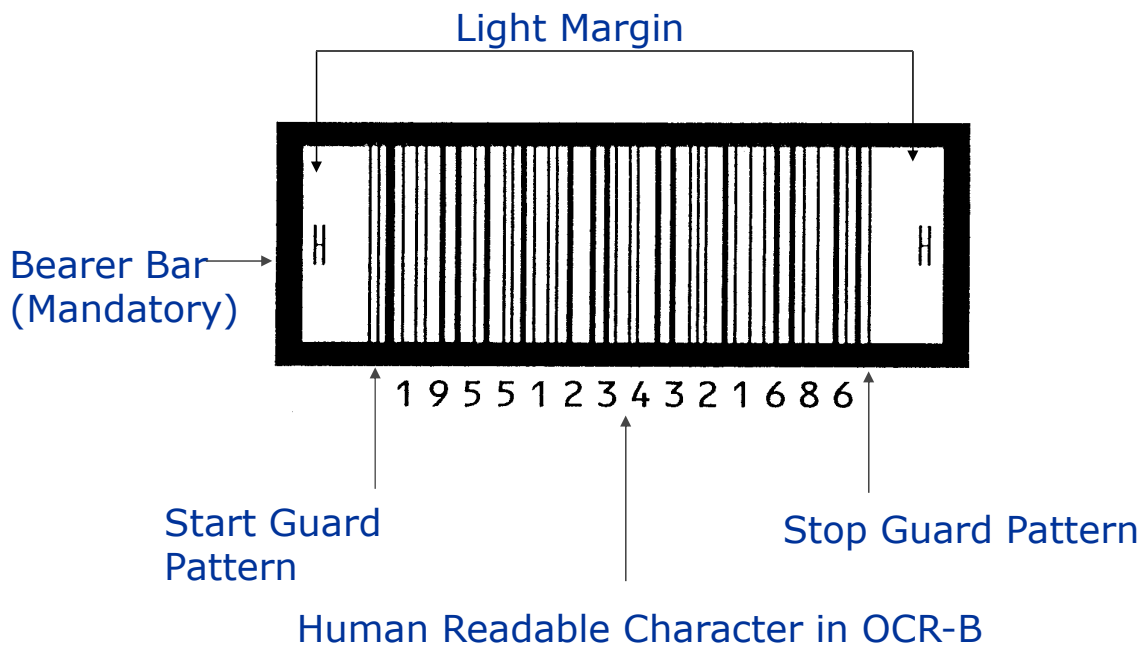
Symbol is truncated to fit the height of the box



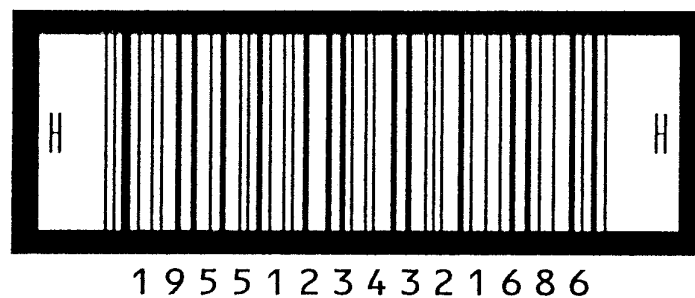
Light Margin Area (LMA)



ITF-14 Symbol Structure



ITF-14 Magnification



- Magnification limits is from 50% to 100%.
- 50% to 62.5% magnification factor is not suitable for printing on corrugated carton.
- Height for bar code symbol which is intended for automatic scanning at the conveyor must be at least 32mm and printed at the highest magnification possible.

GS1-128 Bar Code Symbol



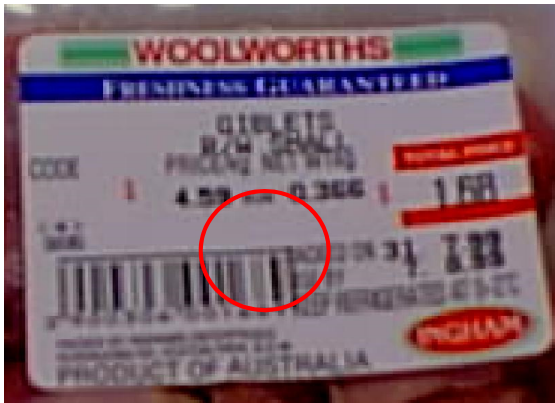
(01)09312345678907

GS1-128 can encode a wide range of information (item ID, measurements, quantities, dates, batch numbers). Therefore it is used on non-retail/transportation unit when more than just GTIN is required.

- Magnification ranges from 25% to 100%
- In a general distribution environment, magnifications shall be between 50% to 100%
- Magnifications below 62.5% should not be printed directly on corrugated cardboard with conventional processes
- Height for bar code symbol must be at least 32mm

The bigger the better





The “blank” area before and after the barcode is PART of the barcode - these are the light margins.

Location



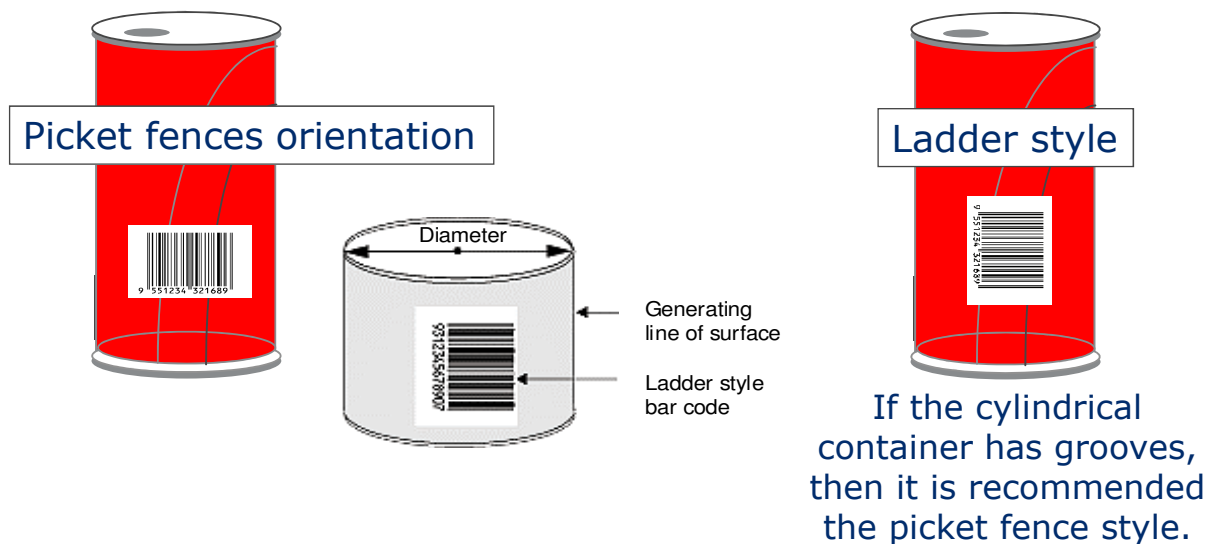
Location

Basic Rules on Location for Retail Item

- Symbol should be placed towards lower right of a face.
- First preferred is on the back.
- Second preferred is on the side.
- Symbol should be printed on a flat surface.
- In the case of single unit and multi-pack, please ensure that the symbol on the single unit is clearly concealed on a multi-pack.
- Where possible, symbol should be printed at 8mm away from any curve, edge or overlap to avoid distortion, scuffing or damage to the symbol.
- In the case of curve surface such as on cylindrical container the symbol is normally printed in the ladder orientation.

Location - Ladder Style/Orientation

Orientation of EAN-13 Symbol on Curve Surface (Cylindrical Shape Container)



Location - Ladder Style/Orientation

On curved surfaces, recommended placement for the bar code is in a ladder orientation when the item stands on end.

Picket fence orientation



Ladder orientation



Basic Rules on Location for Retail Item



Only one symbol on a multi-pack

Tag



Basic Rules on Location for Retail Item

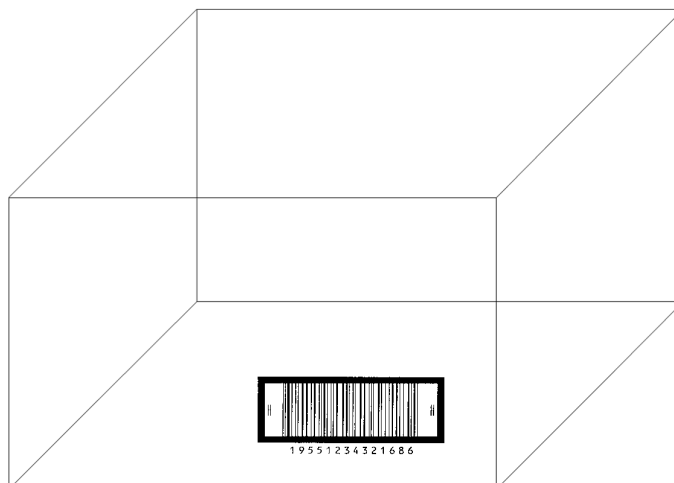
Hidden Barcode, checkouts need to "find" it.



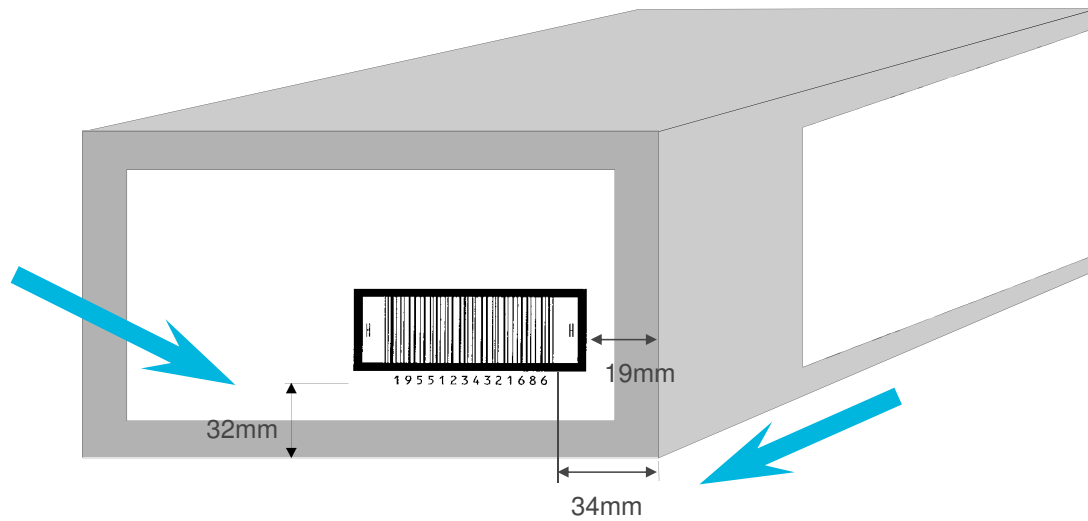
Symbol falls over the edge when packaging contained the product

Locations of Bar Code on Non-Retail/Transportation Unit

- Two bar code labels on adjacent sides (a short side and the long side on the right) is recommended.
- At least one label on any side (except on the base)

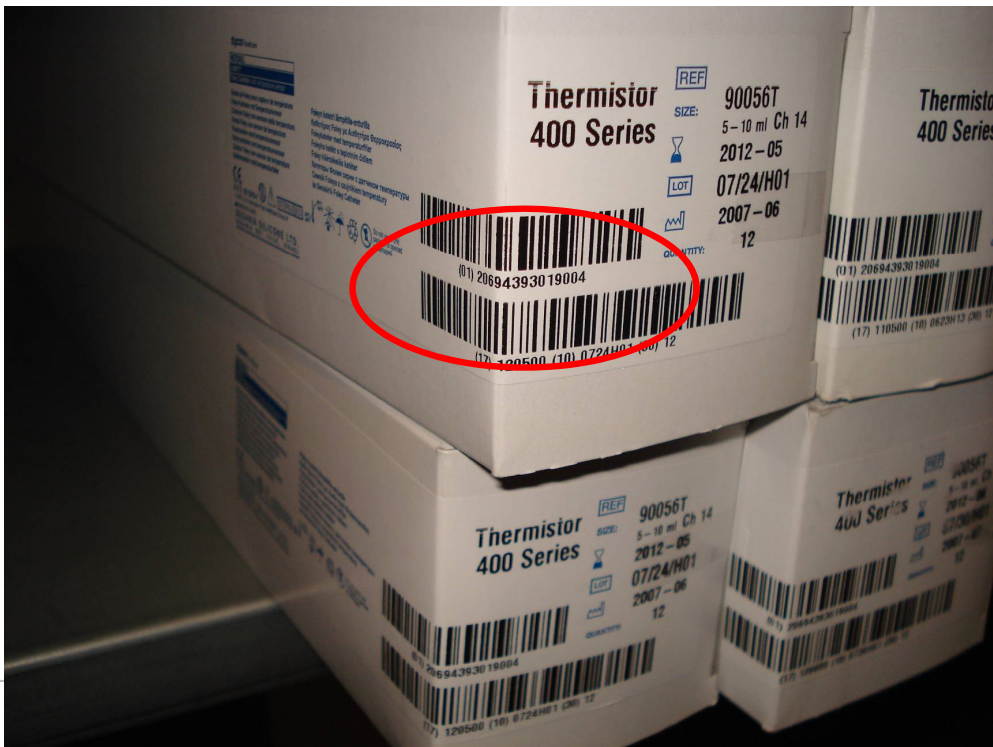


Positioning of ITF-14 Symbol



Creases on
blister pack
affect the
symbol
scanability

Symbol placement, keep an eye open...



Improper Labelling





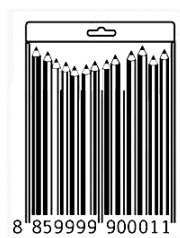
Sealing tape covers the symbol



Shrink wrap is not properly done

Get Creative!!!

Creative barcodes



Creative Barcodes



Creative Barcodes



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How To Get The Barcode Tested?

Contact GS1 Malaysia for
Barcode Verification Service



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Questions?



Thank You

~ Please submit the Evaluation Form ~

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