

GETTING STARTED WITH BARCODES

WHAT IS A BARCODE?

A barcode is a machine-readable symbol consisting of a pattern of a number of bars and spaces of varying widths. Each character within the barcode has its own unique pattern of bars and spaces. They are translated by moving light source across this pattern, which converts the pattern back into the encoded characters. Most barcodes use only the numbers 0 to 9 but some industrial applications use letters of the alphabet as well. It is then up to the computer to check this unique code against a database to see what information it represents. In supermarkets this could be the particular make of baked beans and its price; in the transport of goods it could be the source of the package, its contents, batch number and destination.

In other words, it is a symbol which identifies your information **automatically and quickly**.

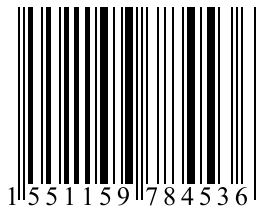
COMMON TYPES OF BARCODE

The three most common types of barcodes are shown below:

EAN CODE

13 digit

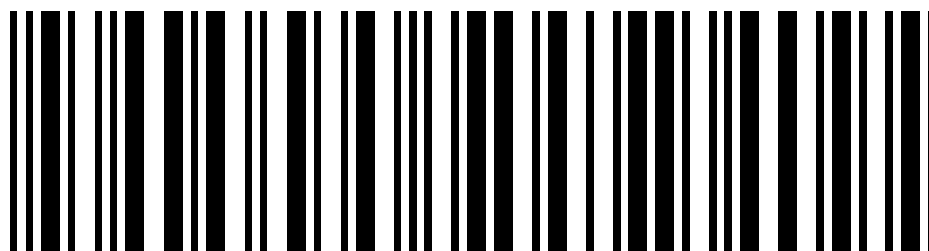
12 + a check digit)



INTERLEAVED 2 OF 5 (ITF) CODE

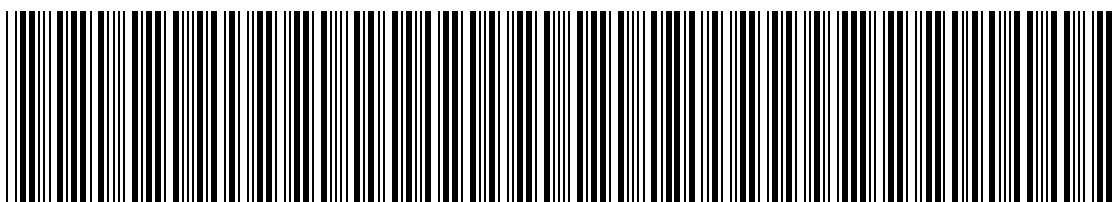
14 digit

(13 + a check digit)



1 25 48972 26125 8

CODE 39



4545S11544D515454E1817A15566

EAN (European Article Number) CODE

These are available with 13 digits and are used to identify individual items at the retail point of sale, as seen in supermarket checkouts etc.

ITF (INTERLEAVED 2 OF 5) CODE

These are codes used on the outer cases of goods and aid warehousing computerised stock control systems. They usually identify the supplier, quantity in the box and the nature of the products contained within.

CODE 39

These are codes used for consecutively numbered barcodes, or in house identification systems for parts, products or equipment.

TIPS ON DESIGNING YOUR LABELS WITH BARCODES

COLOUR COMBINATIONS

As a general rule Dark Print Colours on Light Backgrounds will scan but below is a list of the best and worst.

BEST COLOURS

Black on White	Green on Yellow
Blue on White	Dark Brown on Yellow
Green on White	Black on Red
Dark Brown on White	Green on Red
Black on Yellow	Dark Brown on Red
Blue on Yellow	

NON-ACCEPTABLE COLOURS

Red on White	Black on Gold
Yellow on White	Black on Dark Brown
Light Brown on White	Black on Green
Gold on White	Red on Green
Red on Yellow	Black on Blue
Red on Light Brown	Red on Blue

FILLING THE LABEL

Design your labels and extra text that may be required around the barcode first, as the code is the most important part. Don't try to put too much text and a code on a small label because it may not fit. If you are in any doubt, ask us first.

WHAT IS THE SMALLEST SIZE A BARCODE CAN BE?

Barcodes are measured from the top of the code to the bottom of the numbers.

For EAN Codes the smallest height available is 8.5mm.

For ITF Codes the smallest height available is 14mm.

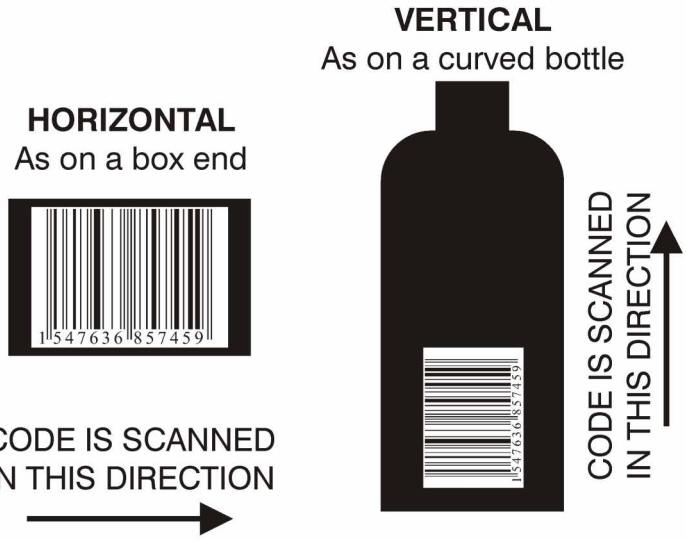
However, these are minimums and should be avoided if possible.



CONSIDER THE DIRECTION OF THE BARCODE

On most products the barcode should be flat and run horizontally.

If you are putting labels on a small bottle that curves, this can cause problems with the reading, and so it must be printed vertically as per the sketch.



CHECKLIST FOR WORKING WITH BARCODES

PLANNING

Plan the barcoding of your items well in advance. The barcoding of a product should be considered as an integral part of your product.

APPLYING FOR YOUR INDIVIDUAL COMPANY BARCODE NUMBER

Your company will need to apply for an individual barcode reference number. For the associations which affect barcode registration, see below.

DESIGNING THE LAYOUT OF YOUR BARCODE LABELS

Never try to hide the barcode! Make it easy for the checkout operator to find.

Size is important: do not try to fit a lot of text and a barcode on to too small a label.

Reducing the barcode height is not recommended and some major retailers accept no truncation whatsoever.

There should be a small space on the left and right hand side of the codes which should be left free of printing. If the label has a coloured background which will not enable the code to scan then a white box must be allowed for the code.

CONSIDER THE COLOURS OF YOUR LABELS

This is vitally important in reading codes. See the list of acceptable and unacceptable colour combinations on page 2, or use black on white - the simplest and the best!

WHERE TO APPLY FOR COMPANY REGISTRATION FOR YOUR INDIVIDUAL BARCODE REGISTRATION

FOR EAN CODES

Contact:

GS1 UK
 10 Maltravers Street
 London • WC2R 3BX
 t:(0)20 7655 9000 • f:(0)20 7681 2290
 e:info@gs1uk.org
 Helpdesk t: (0)20 7655 9001
<http://www.gs1uk.org>

FOR CODE 39, ITF CODES AND CASE CODES etc.

Contact the Trade Association for the Barcoding Industry

A.I.M. UK
 The Old Vicarage
 Haley Hill
 Halifax. HX3 6DR
 Tel: +44 (0)1422 368368
<http://www.aimuk.org>