

## The EAN code

The EAN (European Article Number) code is a standard barcode used in more than 100 countries. The code is made up entirely of numbers. In use are EAN-8 (eight digits) and EAN-13 (thirteen digits) barcodes.

- Valid characters: 0–9

The EAN code is used primarily in supermarkets, where the process of ringing up products is particularly labour intensive due to the high number of items per customer. Each product's packaging is printed with its European Article Number (EAN), encrypted as a barcode. The standard EAN code has 13 digits. For small products, a short version with 8 digits is used: the EAN-8 code.

- The first two digits of the EAN-13 code identify the country in which the manufacturer is based (system code). The code numbers 40–43 stand for Germany, for example.
- The next five digits indicate the manufacturer code. In Germany, this number is issued by the Centrale für Coorganisation GmbH (CCG), Spichernstr. 55, 50672 Cologne.
- The following five digits form the individual product code and classify the manufacturer's product. This number is issued directly by the manufacturer.
- The final thirteenth digit of the code is the check digit, which is determined through calculation. The check digit does not need to be entered when using ActiveBarcode, as it is worked out and added automatically.

## The advantages

- No need to label goods. Price marking is limited to shelves.
- Saves time and is more reliable, as typos at the checkout are avoided.

## EAN code ink colours

The best colour combination for EAN codes is black bars on a white background. As a basic principle, one of these two colours should always be retained. Standard scanners use a wavelength of 670 nm (red light). For this reason, red and red-tone (purple, auburn) bar colours cannot be read or are read very poorly. Gold and silver colours are unsuitable as background colours and often not suitable as bar colours either.

## Suitable background colours are:

- white, light grey, beige, yellow, orange, pink and red

## Suitable bar colours are:

- black, dark green, dark blue and dark brown

## Examples:

EAN 8



EAN 13



## A brief history

The EAN code was introduced in 1977 by twelve states (including all EC states). Since then, further countries have joined the agreement, including almost all Western European countries, the USA, Canada, Australia and Japan. The EAN code has made the check-out process at the supermarket till significantly quicker and simpler. The cashier no longer enters the sales data using the cash register's keypad, but simply passes the goods over the scanner with the barcode facing down. The computerised till then uses the scanned article number to retrieve the associated article description and price from the supermarket's database. Further check-out processes are no longer necessary, unless the barcode is illegible due to external influences and must be manually entered using the keypad.

