

Printing QR Codes in Flexo



The QR Code (abbreviated from Quick Response Code) is the trademark for a type of matrix barcode or two-dimensional code that hold up to 1000 times more info than the traditional single dimensional bar code.

As with the standard bar codes the printer must consider variables such as symbol contrast and symbol size as well as the necessary press conditions: Anilox volume and line count, mounting tape selection and ink strength.

The individual square blocks of code are easier to print than the traditional bar code because they are about 1mm (three times the width of the narrowest of the bar code elements) and the white spaces between code elements are the same width. Also, because the elements are evenly spaced, they are far more readable than conventional bar codes.

As with bar codes, the printable resolution determines the printed size of the code.



The QR codes scan most successfully with an opaque white background that provides white spaces with the maximum reflectance. When printing on a transparent substrate, a solid background colour (preferably white), with maximum opacity is recommended in the area where the QR code is located.

Special considerations for the background ink formulation and Anilox roll specification are necessary in order to achieve maximum opacity and scanability.



Ink colour specifications must be evaluated individually depending on the substrate, symbol contrast should be monitored closely and ink density /opacity carefully. The square symbols in the QR codes require sharp edges in order for the scanner to correctly read the code.

Using the correct Anilox to print a scanable QR Code is paramount as we need to achieve high resolution symbols, with high density colour and sharp edges and minimal dot gain.

We have developed special engravings to improve the printing of QR codes in flexo. These special engravings have been tested extensively in different substrates and print conditions so we can recommend the optimum Anilox specification for your specific print set up and you can achieve the best results when printing QR codes first time around!

Please contact one of our Technical experts on +44(0)161 344 5558 or sales@cheshireanilox.co.uk to determine how can we assist you in improving your printed QR codes.