

Often we receive questions about vector eps files and rastes.

Also, other artwork related questions. In this chapter we will briefly explain the most important things to remember when asking artwork from your customers.

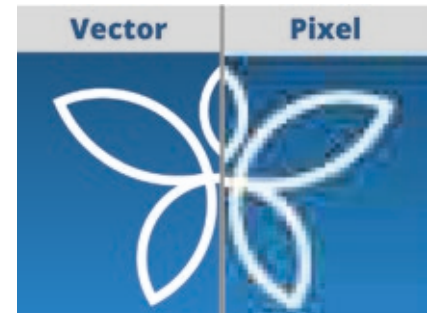
## Vector Graphics

The most important benefit of using vector based artwork is that the files can be enlarged endlessly without any quality loss, also they are very easy to make changes or colour separations.

Vector A vector file can be supplied in the following file formats: EPS, AI or PDF.

Any other supplied file types (like JPG, PSD or BMP) are **never vectorised**.

They are in pixels.



## What does a vector graphic mean?

Vector graphics is the use of geometrical primitives such as points, lines, curves, and shapes or polygon(s), which are all based on mathematical equations, to represent images in computer graphics.

Pixel Vector graphics formats are complementary to raster graphics, which is the representation of images as an array of pixels, as it is typically used for the representation of photographic images. There are instances when working with vector tools and formats is the best practice, and instances when working with raster tools and formats is the best practice.

There are times when both formats come together. An understanding of the advantages and limitations of each technology and the relationship between them is most likely to result in efficient and effective use of tools.

## Text in outlines

When a text in, with, or instead of a logo has not been put in outlines and the used font type is not available at the printers, the text is being replaced. Often text gets unpurposely placed on top of one another. Sometimes the text even gets replaced by question marks, due to the missing font.

The customers advertising agency or printer can solve this problem by putting the text in outlines (= vectorising). The only disadvantage of text in outlines is that possible typing errors can only be corrected by the agency which set the text originally, and owns the used fonttype. If necessary a font type itself can be send as well.



## Non-vector graphics

Whenever providing a vector graphic is not possible, a high resolution pixelfile might be useable as well. This can be a JPG, and also a BMP, TIF or EPS. The particular file has to have a definition of at least 600 dpi, otherwise the definition is too low. The major disadvantage of non-vectorised artwork is the quality reduction of the logo and/or text as the size enlarges. A 72 dpi file is never good enough. A file that doesn't even appear sharp on screen, will certainly not be suitable for printing.

A 300 dpi file might be good enough for printing. For instance for printing a photo or full color image. Such a file then can only be printed on the supplied size or smaller. When the size needs to be induced, the definition becomes far too low. A 300 DPI file of 3 cm x 0,7 cm can be printed on a pen, but when the same file needs to be printed at 20 cm of width on an umbrella, the 300 DPI file will only be 45 DPI. ( $3/20\text{cm} = 0.15 \cdot 300 = 45 \text{ dpi}$ )

## Text

Text that needs to be made-up for imprint can be supplied in a Word file or the text can be put in the e-mail message itself, which is preferred if a specific fonttype needs to be used please check up front if we have it in our font type base.

## Colours

It's important that the correct Pantone colours (PMS) are supplied. Providing correct Pantone-colour numbers will prevent misunderstandings. The approved mail proof will be compared to the data in the order.

When the colours are similar, a film can be made, if not, the customer will be contacted.

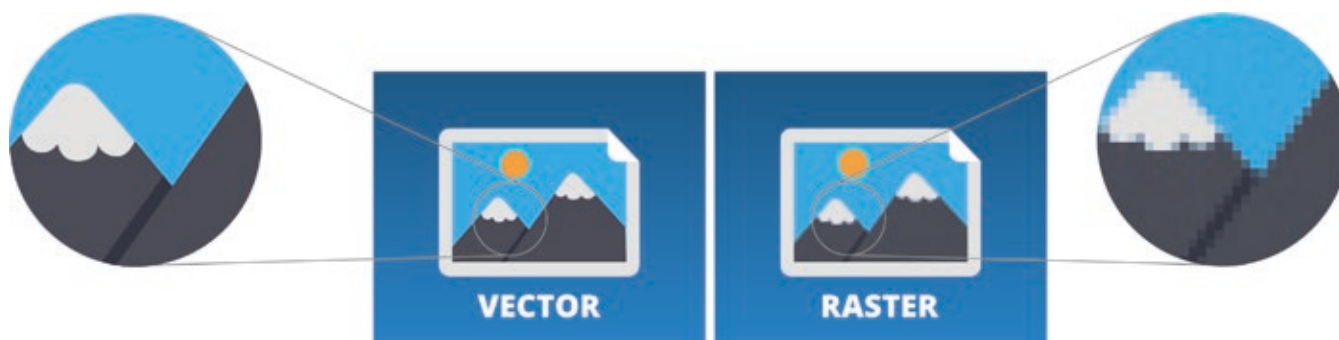
If necessary a RAL or HKS color number can be given as well, but PMS is preferred. Colors on screen are an impression of the outcome, not a 100% match. The end result might herefore differ from the PDF proof.

## Rasters Graphics

In computer graphics, a raster graphics image or bitmap is a data structure presenting a generally rectangular grid of pixels, or points of colour, viewable via a monitor, paper, or other display medium. Raster images are stored in image files with varying formats.

A bitmap corresponds bit-for-bit with an image displayed on a screen, generally in the same format used for storage in the display's video memory, or maybe as a device-independent bitmap. A bitmap is technically characterized by the width and height of the image in pixels and by the number of bits per pixel (a color depth, which determines the number of colors it can represent).

The printing and prepress industry know raster graphics as contones (from "continuous tones") and refer to vector graphics as "line work".



Often, logos contain a percentage of a color. These parts will also be reproduced by using raster. Rather coarse rasters need to be used for screen-, transfer-, and pad print. Compared to a picture in a glossy magazine the rasters in a news paper are far more coarse. The separate raster dots are very well visible in a news paper, while in a glossy they will hardly be visible with the bare eye, a magnifying glass needs to be used to see the raster. The printing techniques necessary for imprint on business gifts require even more coarse rasters then news paper print. The individual raster dots will be visible.

The usage of coarse rasters might make texts in raster (percentage of a color) hardly or not readable. Everything printed in less then 30% of a color will disappear completely while everything that needs to be printed in over 70% of a color becomes the full-colour. A percentage of a color appears as a lighter color on screen, but when printed the hue appears as a raster. The raster dots are clearly visible while the base color "shines" through. When a file contains a raster, the printer will suggest to print the raster in a lighter PMS color instead. Print in full-colour always contains raster.



# Printing techniques

<b>P</b>	Pad Printing	<b>CT</b>	Ceramic transfer
<b>S</b>	Screen Printing	<b>DL</b>	Digital labels
<b>T1</b>	Transfer Printing	<b>PD</b>	Digital Printing
<b>L</b>	Laser engraving	<b>DPT</b>	Digital Printing Textile
<b>E</b>	Embroidery	<b>TS</b>	Sublimation transfer
<b>DO</b>	Doming	<b>B</b>	Debossing
<b>TD</b>	Digital transfer		