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CUSTOMER GUIDE TO ARTWORK ON POLYBAGS

ARTWORK SHOULD BE CREATED IN THE FOLLOWING APPLICATIONS

Adobe Illustrator, Photoshop, Indesign, PageMaker
Quark
Artpro
Macromedia Freehand

Please be aware that in some cases, latest software release versions may not yet be supported. We will let you know if there is an issue with the release version used.

Print Plate production is performed on a Macintosh Operating Platform and so files must be Mac compatible.

FILE FORMATS ACCEPTABLE

As well as from the above applications, eps, jpeg, tif and pdf file formats are acceptable.

All photographic images must be saved as CMYK.

If file format is a problem we will be able to recreate from a hard copy but there will be a cost involved and potential matching issues if the design is intricate.

Resolution required for bitmap based file formats must be at least 300 dpi at the actual artwork dimension size, otherwise quality will not be acceptable when printed.

FONT CONSIDERATIONS

To avoid problems of compatibility with fonts, all designs including type must include the associated font file. Please note there are 2 parts to a font file - the bitmap for viewing and the postscript for printing - and both must be included.

Where possible it is preferred that type matter is supplied as 'outline paths'. (Please remember to save a version of the artwork in live fonts as well, as outline paths can not be amended subsequently).

ARTWORK DATA TRANSFER

For files less than 20MB in size please feel free to email to us at artwork@polybags.co.uk . For larger sized files, an ISDN data transfer can also be accepted on request.

We also accept files on Floppy disk, CD-ROM, DVD-R and Zip Disk (100 and 250MB formats). Please ensure if there are multiple files on the disk that the required file is stipulated clearly.

Please always send a hard copy of the artwork by post as well as the digital format.

COST ESTIMATIONS FOR ARTWORK AND PLATES

There are a large number of variables to consider when taking customer designed artwork and preparing it for print, therefore we always reserve the right to amend artwork estimates on sight of the artwork. However we will never amend prices once go-ahead for the order has been given.

We also appreciate that an estimate of artwork/plate costs is required upfront and have prepared a guide to costings below. There are 3 costs to consider - the **Repro Artwork** costs, the costs of the **Printing Plates** themselves plus any **Proof**.

REPRO ARTWORK CHARGES

Line Colour work with Spot Colours

Depending on the complexity of the artwork and if it is all ready set for print, cost will vary from £15- £30

Process Colour work

A basic cost of £30 will be charged with any additional costs from £60-£120 for image retouching

If you provide an Incorrect File Format or if a digital file is unavailable or unusable

This will result in additional time charged at £30 per hour. If an image is not in the correct format and can not be converted /scanned it will need to be recreated. In such an event we will quote beforehand and only go-ahead with the Repro Artwork with your agreement.

PLATE CHARGES - PLEASE ESTIMATE BASED ON £0.20 PER SQUARE INCH OF PLATE

For all line work print, please work on the basis of one plate per colour although there are occasions where more plates will be required, particularly if there is a short print repeat length of less than 12". If the print is on both sides this will require an additional set of plates regardless of whether the design is identical as the print process is performed on both sides simultaneously.

If a photographic image is required please work on the basis of 4 plates plus an extra plate for any bold type colour required.

PROOFING CHARGES

PDF standard proof - Free of Charge

Cromalin Proof (Advised for all Process print work)

£100 per copy for tone work (£50 for line work) - Add £25 to provide proof on actual film substrate being used.

EXAMPLE (PLEASE REMEMBER THAT THESE COSTINGS ARE ESTIMATES ONLY)

2 Colour 2 Side print on a bag 15x18" with the print area 10" wide by 8" deep
Loose Registration Line Work with digital file supplied in correct format.

Artwork = £15

Plates - Plate Cost = 80 sq inches* x £0.20 = £16.00 per plate x 4 plates = £64.00

PDF Proof - Free of Charge

TOTAL ARTWORK/PLATE COST = £79

* When calculating the plate area, use the maximum print width and length as the basis of the calculation.

SOME BACKGROUND INFORMATION ON PRINTING ONTO FLEXIBLE FILMS

Understanding the basic principles of the printing process will help explain the artwork and printing plate preparation process and also the more common problems and pitfalls in printing onto film.

We use Flexographic printing which is the most common and cost efficient process. The print colours are separated out and printed separately. On the flexographic print press, the film is passed through rollers and pressed up against a rubber plate with the print image engraved on it and covered in ink. This process is carried out for every single colour so that if it was a 4 colour print on both sides of the film there will be 8 printing stations and so 8 print plates that the film will be passed against. (This is one reason why print plate costs escalate when the print design is a number of colours).

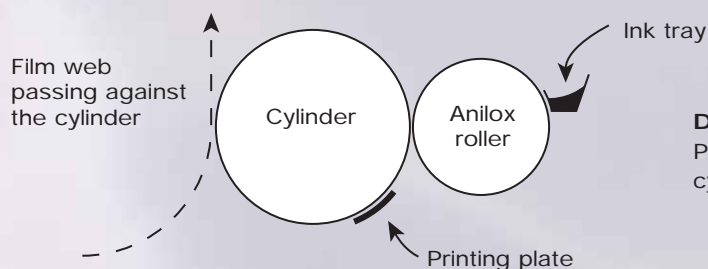
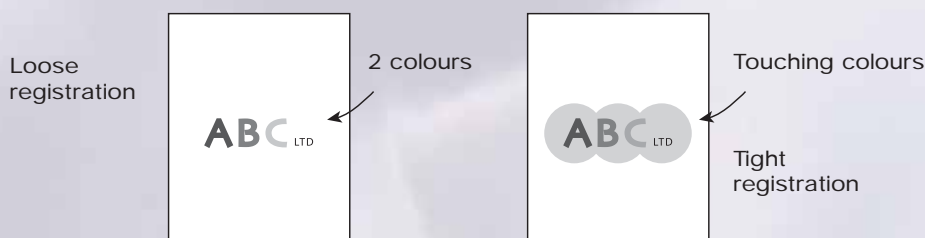


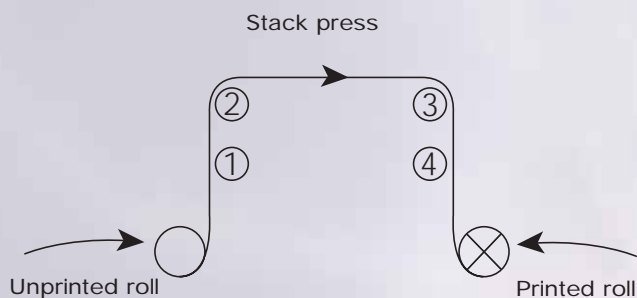
Diagram of printing station for 1 colour

Print repeat length is circumference of the cylinder

Ink does not adhere to film particularly well and so the film is treated with high voltage electricity prior to printing which aids adhesion. The ink needs to dry between print stations to avoid smudging problems and the positioning of each print plate on the roller and tension of the film is crucial in obtaining good registration (Ensuring the position of each print colour on the film artwork is in the correct absolute and relative position). The more intricate the design with colours touching or in critical positions relative to each other the more difficult the registration process.



Printing can be carried out in-line with the film extrusion process (with the printer attached to the extruder) which is efficient for simple and/or long running jobs. For more intricate and short run jobs an off-line (reel to reel) printer is normally the best option and although this incurs more cost it will always give the best quality print as web tension, registration and ink application can be most closely controlled.



Reel to reel stack printing press

This diagram shows how you are able to print 4 colours (4 colours one side or 2 colours 2 sides)

LINE WORK AND TONE WORK

Vector Based files will result in print plates made up of images based on solid 100% colour lines and curves giving sharp edges. This is called **Line Work**. Normally this will be for spot colour print with solid lines on the print plate but you can also have tints of a single colour by using a graduating dot design (a graduating screen).

Bitmap based files (normally from photographic images) will result in plates made up of a grid of lines of dots. The frequency and size of the dots will affect the amount of printing ink transferred to the film, and so the tone of the colour. This is called **Tone Work**. Using this method with a combination of process colour inks you can create a range of tones of a colour in a design.

SCANNING ARTWORK TO BE PRINTED

Scanning an image to create a digital format will produce a bitmap based image file. It is therefore important that it is scanned with sufficient resolution. It is also crucial that a '1st Generation' image is used when scanning or else the resulting digital format will be 'dirty' and may require retouching.

If it is a colour image it should be supplied in CMYK mode (Cyan, Magenta, Yellow and Black) rather than RGB (Red, Green, Blue) which is the standard colour format for viewing colour on a computer screen.

SPOT COLOURS AND PROCESS PRINTING

If the artwork design is one simple colour or a number of separately identifiable colours e.g. a Company logo, then **Spot colours** will be used. These are colours that individually match the exact print colour required and are calibrated by reference to the Pantone colour charting system.

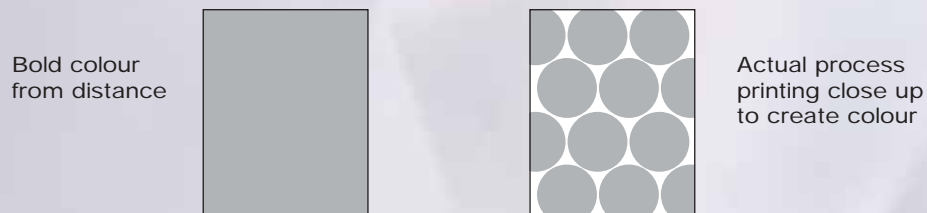
Many common Pantone colours are stocked as a printing ink but to get specific unusual colour variations there may need to be ink mixing that will mean minimum order quantities and slight ink colour variations. It should also be noted that common printing uses a solvent mix which is another reason why there will always be slight small colour variations on film print as solvent evaporates and is replaced.

Where the print design is a photographic image with shades and variations of numerous colours a **Process print** system is used. By combining Cyan, Magenta, Yellow and Black (C,M,Y,K) to varying degrees a large number of shades can be replicated. Therefore only 4 print plates need to be used to enable this print.

The 4 colours are printed as dots at slightly differing angles so that from a distance it appears as a solid shade of one colour, but close up it is actually a combination of dots of the 4 process ink colours printed almost on top of each other. The % of ink of each colour will result in the actual shade of colour produced in the print.

Please note that we may not be able to exactly match the artwork design as not all shades can be exactly replicated by the process ink colours. Therefore a good colour proof is advised for all process jobs (see below).

In addition you can combine spot colours and process print so that if for example the artwork is a photographic image plus a bold logo you might need to combine process print with a separate spot colour for the logo. This is because although process print can create a large variety of colour shades, the ink colours are not as bold or as vibrant as an individual spot colour.



THE PROCESS FROM CUSTOMER SUPPLIED ARTWORK TO PRINTING PLATE

Once the artwork is in the correct format, the reproduction team will check to see whether any image retouching is required. This will more likely be the case for process work but may also be needed for some line work, particularly if there is close registration (See 'Print Considerations' later on). They will then split the colours to the individual Pantone colours (if spot colour printing) and the process colours C,M,Y,K if process printing.

The plate production software then creates the image of each colour on a separate photopolymer plate which then goes through a washout procedure and then a curing/drying procedure to produce the physical plate.

THE PROOFING PROCESS

The proofing process is essential as it is your responsibility to check the artwork before going to print.

There are a number of distinct areas that must be checked:

Bag/Film Measurements and Seals - Putting aside the print, are the dimensions and seal positions correct?

Any product add on? - Handles/Perforations etc. - Again putting aside the print are these correctly positioned?

Print Content - Is the wording, size and positioning correct?

Print Colours - Are the pantone colours specified correct?

With Colours it is important to note that print colours on a sheet of paper will not match the appearance of print on film - this will be affected by film base colour (is it clear or coloured film?) and film thickness. Whilst the only way to get an exact colour proof would be a sample from the print press itself a Cromalin proof is recommended for all process print jobs. This produces a close match to the actual appearance of the print on the film but does incur more cost than a standard visual proof. For even closer accuracy of colour proofing, the proof can also be supplied on the actual film substrate being used for the job.

CONSIDERATIONS FOR GOOD QUALITY PRINT RESULTS

Please bear in mind the following considerations. They can help to improve the appearance of the final product:

- Avoid tight register between colours and if possible leave at least 5mm. A bold white keyline around an image can help with register, otherwise you may experience a slight colour variation where the two colours touch (known as trapping).
- Avoid designs that need to 'bleed' to the edge of the film. Whilst this can be done it incurs considerable extra cost. It is preferable to keep at least a 5mm border between the edge of the print area and the edge of the film.
- Avoid print areas that extend over gussets as this can affect the ink transfer as the film will not be flat.
- Try to keep type styles quite bold and avoid small or fine type. Bear in mind the final use of the printed bag. If it is a carrier bag to be viewed from distance rather than close up, bolder styles may be more effective.
- Whilst tone work can be an effective print style with a graduated colour screen, avoid reducing down to zero because when printing there will be a visible point at which there is no longer any print (approximately when the colour % falls below 5%)
- Avoid Light Print on a Dark Film background e.g. White print on an opaque Red film. This is because inks are translucent and so affected by the base colour. In the above example we would recommend printing a red design on a white film or reversing out the colour so that you have almost 100% ink coverage of red on a white bag to give a white design on a red background.

LEAD TIME ISSUES

You can see from the above document that depending on the complexity of the design there can be significant time from sending the initial design idea, to printing plate production. If lead times are critical (and also to avoid unnecessary costs in artwork) it is important to be clear about the design required, to send the artwork in the correct format and to review and approve the proof as quickly as possible.

We will always look to prioritise urgent jobs but obviously they can not be scheduled until the plates are ready.

GLOSSARY OF TERMINOLOGY

File Formats

AI: Adobe Illustrator – A vector based file format for artwork design

EPS: Encapsulated PostScript File – a standard and flexible format for importing and exporting PostScript files (A Postscript file can be viewed as the output a computer sends to a printer, captured in a file)

JPEG: Joint Photographics Experts Group – a bitmap file format often used by digital photography and web based illustrations. Can be used if sufficient resolution (Will be re-saved as an eps file for print)

PDF: Portable Document File – technically neither a vector or bitmap file as can include both information e.g. text within a photo could have text as vector information with the photo in a bitmap format. Often created by scanning documents these can be used if sufficient resolution.

TIF: Tagged Image File Format – a flexible bitmap based file format and like a JPEG can be used if sufficient resolution.

GIF: Graphic Image Format – a relatively old bitmap format designed to handle up to 256 colours (8 bit colour) now not normally appropriate for print artwork due to the limited colour range.

Inks

SPOT COLOUR: A pre-mixed ink colour chosen using the Pantone colour reference chart.

PROCESS: A range of colours obtained using combinations of 4 the process colours Cyan, Magenta, Yellow and Black (C,M,Y,K).

Print

LINE WORK: To describe when the print comprises 100% of a spot colour, usually a vector based file with the image based on exact lines and curves giving a solid line to the print plate (a graduated screen using one spot colour is normally termed line work as well although technically tone work)

GRADUATED SCREEN: Altering the dot dimensions on the plate to print a graduating tint of a particular colour.

TONE WORK: Printing using a series of dots with differing dot density, size and angle to get an image printed in a percentage of colour.

HALFTONE: Tone work when using just a single colour of an image (Colour screen) – often black and white.

RANDOM REPEAT PRINT: Where the print image repeats every x inches on the film or bag but not in the same position on every item.

REGISTERED REPEAT PRINT: Where the image is required to be positioned in a particular place on each bag.

Other Terms

DPI: Dots per Inch – the more dots per inch, the higher the resolution of a viewed image

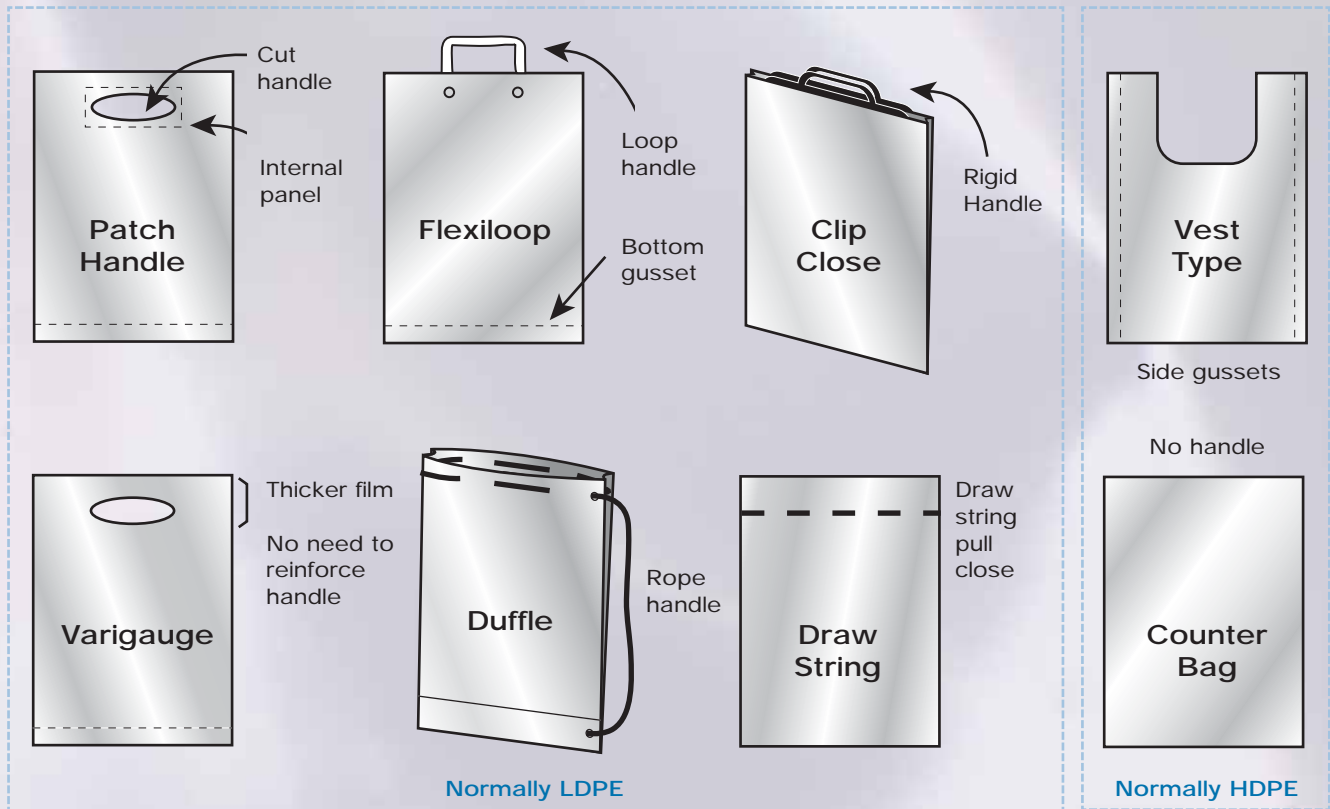
FONT: The design of letters and numbers – also known as Typeface.

LPI: Lines per Inch – this is the number of lines of dots per inch on a tone/screen work printing plate. The higher the lpi the higher the print resolution (Will combine with dot thickness to give colour %)

PIXEL: Short for Picture Element, a pixel is a single point in a graphic image. Graphics monitors display pictures by dividing the screen into thousands (or millions) of pixels, arranged in rows and columns.

RESOLUTION: The degree of detail of an image – normally expressed in dpi.

POLYBAGS CARRIER PRODUCT SHEET



Standard base material colours

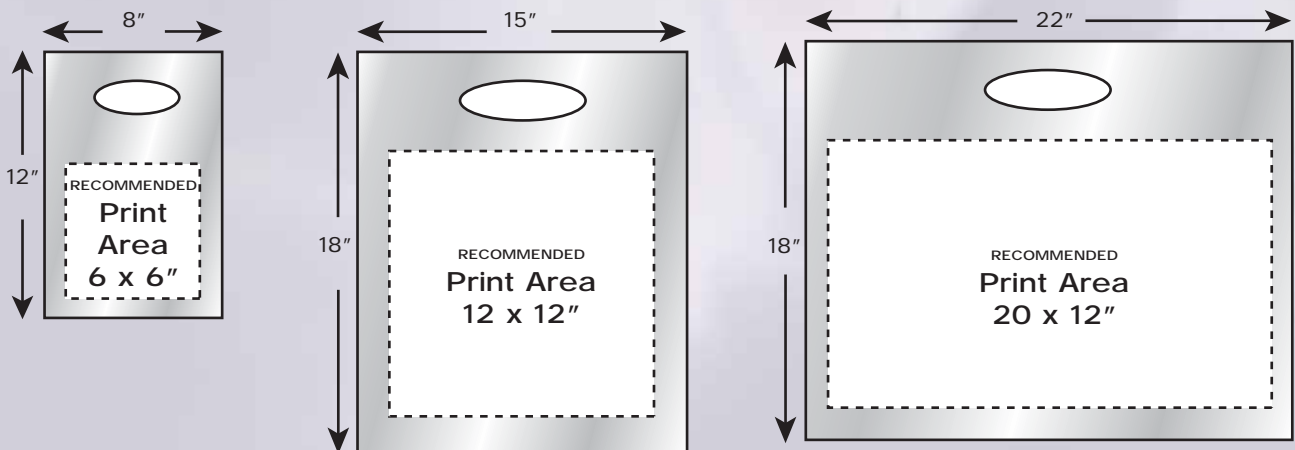
Clear / White / Frosted / Yellow / Grey / Silver / Red / Blue / Ivory / Burgundy / Harrods Green / Gold / Black

Standard Pantone ink colours

Red 485c / Green 348c / Reflex Blue / Brown 4625c / Gold 873c / Black / Silver

Standard print areas

Please allow for any handles and leave a margin around the bag



Many stocked carrier lines are available, including coloured carriers