

## COLOUR DECORATION - PAD PRINTING INFORMATION SHEET

This information is a guide for all customers interested in using our pad printing service.

We can decorate glass and crystal with colour in three ways:

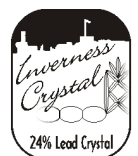
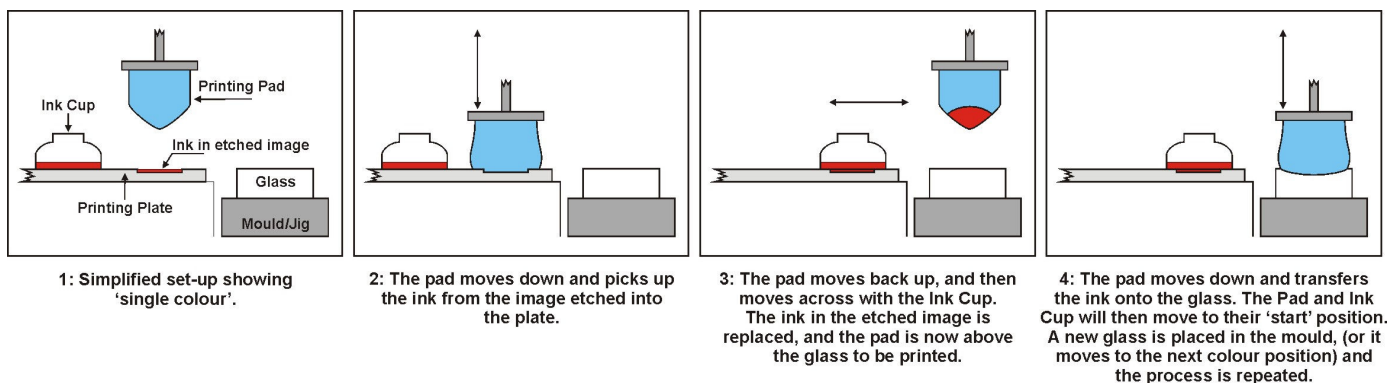
1. Using a colour infill in an engraving. (Please see our information sheet 'Colour Decoration – Engraving Infill')
2. Using a Decal Transfer system. (Please see our information sheet 'Colour Decoration - Decal Transfer')
3. **Using a 4 colour Pad Printing Machine, as described below.**

Our Pad Printing Machine can decorate glass using 1, 2, 3, or 4 colours, but we are unable to pad print using four or 'full' colour process (like photographic images), because this only works on a solid colour background. Due to the transparent nature of glass, a background colour would have to be printed so 5 colours in total would be required (a white background then CMYK colours).

Pad Printing is essentially an image transfer system, using a silicone pad to take ink from an etched image in a printing plate, and then transfer it onto a substrate.

***Special promotional items, Wedding favours and Gift items are all ideal opportunities for using pad printing, along with Clubs and Associations requiring mementos using their crest or logo. Pad Printing is the most cost effective short to long run colour decoration service we offer!***

**The Printing Process:** The required design is 'etched' into a plate – 1 plate for each colour, and the plates are fitted into special trays on our machine that also contain the ink cups. The cups are set to move back and forth in tandem with special silicone pads. When the cup moves forward, ink is deposited into the image etched in the plate. The cup will then move back removing any excess ink as it travels; the pad is now positioned above the inked image. The pad moves down, and the inked image is transferred onto the pad. The pad moves back up, and the cup and pad move forwards (depositing more ink in the image). The pad now moves down and transfers the image onto the glass. If more than one colour is required, the glass will move on a pneumatic shuttle to the next plate/colour position, and the process is repeated.



The 2-pack inks that we use have been specially developed for use with glass and crystal. Once the glasses have been printed, they then need to be heat cured in a kiln at 150°C. The curing process hardens the ink to make it more durable.

A wide variety of colours are available, including a 'frost effect' engraving look-a-like. The transparency of glass means that we do not offer the service of matching pantone colours, but we will endeavour to print the closest match available. Pad printing is not a 'solid' application of colour, if any pad printed item is held to a light source, the colours may appear lighter.

The maximum print area obtainable is a 50mm diameter, but the print size will be determined by the image required and the article it is to be printed on. We will size any image to suit the article, to give as detailed an image as possible, and to prevent excessive distortion. Pad printing machines will decorate glass in a single position only – they cannot print 'wrap around' designs.

Artwork for multiple colour print runs will need to be provided as separations (1 piece of artwork for each colour). We can provide an artwork service for you if required. Please see our 'Artwork Information' sheet for details on artwork provision requirements.

Our inks have been tested and withstood multiple cycles in a dishwasher, but we do not guarantee the print as dishwasher safe, due to the varying factors applicable to cleaning glass in dishwashers. Different types of glass, different cleaning agents and the varying properties of each colour mean that we cannot state how many washes the images can withstand before any fading occurs; most forms of colour decoration on glass will eventually fade if continually cleaned in a dishwasher. We do not guarantee the printing suitability for any items of glass that are *not* in our range (i.e. articles supplied by the customer).

Prices for Pad Printing are listed in the current price guide and on our website ([www.glassscribe.com](http://www.glassscribe.com)). If you are using our price guide, don't forget to add the 'set up' charge listed at the top of each pricing column. There are also surcharges for less than 240 pieces (found towards the back of the price guide). Our website will calculate the costs from the information you enter on the online order form. Pre-production samples can be supplied, but the set-up costs and applicable ink surcharges will be chargeable for the sample *and* the production run – 2 pack inks mean that the machine cannot be left until a sample has been approved; it needs to be cleaned down and set-up each time.



If you have any queries regarding pad printing or artwork provision, please contact our offices.

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