

Screen Printing with Ceramics

SCREEN PRINTING MATERIALS

- 1) Oil Based Mediums.
- 2) Water Based Mediums.

Oil Based mediums has been the time honoured method of screen-printing and is still widely used in industry. The mediums are costly, dry in a short time span and require spirit-based thinners to clean down screens and tools.

Water based mediums have been a relatively new development. The mediums are inexpensive, remain usable up to 20 minutes and are water-soluble.

ARTWORK

A carbon image is required that can be prepared from: -

- Carbon Pen.
- Photocopy image.
- Laser printer image.

Dry artwork is critical.

Good artwork is critical.

Clean artwork is essential.

Do not mix artwork on the same screen as they all have different carbon levels, which will cause patchy printing.

Carbon Pen.

Draw design.

Dry design with hair dryer to eliminate moisture from artwork.

Photocopy Image.

Set photocopier to lightest setting before copy begins to break up or fade.

When creating the screen insert the blue filter between the screen mesh and the glass top of the light box.

Laser Printer Image.

Create image on computer and print to laser printer. As laser printers transfer large amounts of carbon to the print. This may cause the screen to be blocked with carbon. To avoid this use an iron set to permanent press and steam off. Lay print on a heat resistant surface. Lay some clean up paper on top of the print. Move iron over the surface ensuring that the iron does not stay in contact with the surface for more than 2 seconds. Repeat 3 more times. Slowly remove paper and repeat above with a clean piece of paper. Repeat this again.

If you find the paper is sticking to the design you are transferring too much heat from the iron.

If the paper is turning brown decrease the iron temperature.

If on the third piece of clean up paper there is no imprint left on the paper increase the time spent by the iron moving over the surface or increase the temperature of the iron.

CREATING THE SCREEN.

Cut a piece of screen mesh to the size of the frame.

Place a piece of card on the pad.

Mount carbon image in Light Box, carbon side up.

Place screen mesh smooth side down.

Close lid.

Insert light bulb holder to flash image. This burns the carbon through the emulsion film of the screen and creates the image.

Screen is pre tensioned so no need to overstretch screen onto frame.

Remove protective cover on tape on back of frame.

Lay rough side of screen onto frame.

Ensure no wrinkles.

You may want to tape edge of screen to frame as an extra precaution to stop screen moving.

SCREEN PRINTING.

Ensure the screen is dry.

Use a palette knife to lay a small amount of ink on the narrow end of the screen. Ensure the line of ink covers the full width of the screen.

Lay the squeegee at a 70-degree angle and gently pull the squeegee towards you.

Place the squeegee down on a scrap piece of paper and lift the frame up in a hinge motion.

If the screen is not covered with ink.

- insufficient ink has been placed on the screen.
- uneven pressure on squeegee.
- squeegee angle too high.

If the print is too dark or smudged or blurred.

- pressure too great.
- screen was wet before screen printing.
- squeegee angle too low.

If the print has spots in unwanted places.

- screen has holes. Repair with correction fluid.