

Ceramic Decoration

If you are a ceramicist or potter, think outside the traditional boundaries (and limitations) of design reproduction. Here's a simple to use system for reproducing a design multiple times to which you can then personalise, embellish and create upon.

A simple example is to print a design guide/ border, using ink which burns out when fired. Imagine the this will save you on a run of only 50 tiles!

Understanding Ceramics

When the initial ceramic compound is poured into a mould and sets, it forms GREENWARE (ceramics at its initial stage). When the GREENWARE is fired, it forms BISQUEWARE, a more solid and workable ceramic surface (GREENWARE is very fragile). It is the BISQUEWARE stage where most ceramic designs are applied.

When the design is finished and a glaze coat applied, the item is fired in a kiln to seal the underglaze colours. From this stage only ONGLAZE INKS may be used to further decorate the ceramic piece (underglaze colours will not adhere to the glazed surface).

Ink Types

There are numerous ink types that can be applied to ceramics, the following is a brief description of the 4 most common types and their applications.

KERA Underglaze Ink (Transfer Ink) - The KERA Underglaze ink is specially formulated to be either screen printed directly onto a flat ceramic surface ie tiles, plus Transfer Printed onto curved surfaces - both GREENWARE & BISQUEWARE

KERA Onglaze ink - Once an item has been glazed and fired, only an on-glaze ink may be applied to further decorate the item. CGA On-glaze ink may be directly screen printed onto a glazed flat surface ie glazed tiles.

Brushing colours - Underglaze colours formulated for brushing/ painting a design onto ceramics at the GREENWARE or BISQUEWARE stage. Once a design has been screen printed or Transfer Printed, brushing colours may be applied to complete the design.

Englobes - Explained simply, an englobe is a watered down brushing colour that is used to colour the ceramic piece, generally before any decorating or printing, i.e. background colours. The englobe has less pigment in the ink so as to cover a larger area at minimum cost. When covering over a mistake/ unwanted design three or four coats may need to be applied due to the ink's thin constancy.

Printing Ceramics

Apart from the time consuming process of brushing on colours there are two methods used for **printing** ceramics:

a) **Direct Screen Printing** - Laying a RISO ScreenMaster screen printing screen directly on top of the item to be printed and the ceramic medium (Underglaze or On-glaze) screened through the screen onto the item below.

b) **Transfer Printing** - Laying a RISO ScreenMaster screen printing screen over Transfer Paper and screen printing the 'Bev Butler' Underglaze medium through the screen onto the paper below. This wet design is then 'transferred' from the Transfer Paper onto the ceramic piece (flat or curved).

The Ceramic Starter Kit (code S-104) has been specifically designed for Transfer printing applications, with easy direct printing also available from the kit.

It's Easy To Get Started

The great benefit of the NEHOC system is you need NO experience in screen making or screen printing to use the system. The simple operation of the NEHOC Ceramic Printing Kit [Code S-104] gives you all the equipment and instruction to get going immediately. Combine this with a Tile Jig, for professional registration and multiple colour printing, and you have a very powerful and professional printing system at a fraction of the normal set up cost.

Quick and easy design transfer onto ceramics - RISO ScreenMaster enables a design to be applied to both green ware and bisque ware in a matter of minutes, without Chemicals or Solvents, nor the need for artistic skill in producing your design.

Items required for Transfer Printing - NEHOC Ceramic Printing Kit contains all the materials required - simply add your design, scissors/ knife, a bowl of water and a sponge (chux cloth).

Imaging The Design

The imaging process takes less than one thousandth of a second, uses NO CHEMICALS or SOLVENTS and instantly creates your screen ready to use. **Any design may be used for the transfer process** provided it will fit the mesh and frame you have available. The design can be a simple line drawing, solids or a complex photograph.

Details of imaging screens

Instructions for imaging RISO ScreenMaster can be found on the Internet in both written and visual format, with an Operation Guide available from the Download section, or watch the online video demonstrations www.nehoc.com.au/video

Printing The Design

Using a squeegee, place the KERA Underglaze ink onto the blade and place this onto the screen. Pull the squeegee across the screen. **Note:** the squeegee should be at approx. 70 degrees and light pressure should be applied. Heavy pressure will bleed the ink. Light a pressure will leave a faint impression.

After the design has been screen printed onto the transfer paper, lift the frame to reveal the printed design.



Important

The ink will remain 'wet' and transferable for over 30 mins. Multiple copies of the design may be printed at the same time if more than one copy of the design is to be applied to the same, or multiple pieces of ceramic bisque ware.

Applying the Design

1. Cut your design out from the Transfer Paper. Cut close to the design leaving a border of 1-2mm [Do not cut the design!]
2. Place your sponge into a dish of water, completely wet the sponge and then wring the water out as tight as possible with only one hand. The sponge should be damp but not dripping wet.
3. Wipe your ceramic piece in the area where the design will be applied. This helps the paper to stick and the ink to be transferred
4. Quickly wet your sponge again and then squeeze dry
5. Apply one side/ corner the Transfer Paper, with the printed design, onto the ceramic piece in the desired location
6. Gently rub with your fingers to adhere the glaze to the bisque surface and to form a starting place for the adhering the design
7. Using your sponge, pat the back of the transfer paper whilst gently moving from one side of the design to the other- This 'patting' will release the Transfer Ink from the Transfer Paper to the ceramic piece
8. Once the design area has been covered lift the Transfer Paper from where you started to reveal your transferred design



The same procedure is followed as for flat or slightly curved areas, however you must simply use more care as you 'roll' over the edge of your ceramic piece to ensure all the design has been covered.