

## **BASIC FIRING**



## **Useful Information**

Images and information about the products described below can be found on our website at:

**ADVICE AND TIPS** 

www.countrylovecrafts.com

For health and safety guidelines regarding ceramic/pottery glazing and firing, please read the appropriate recommendations provided by the Health & Safety Executive at the HSE website – www. hse.go.uk.

Working Kiln: Without a fully functioning kiln you cannot trade and you will very quickly lose customers (especially if pieces are not fired correctly or are not ready on time). Make sure you have a fully functioning kiln that will fire to the correct temperatures for the items that you intend to fire.

**Pre-Decoration:** Remember to examine bisque pieces prior to decoration. Hairline cracks on damaged pieces can be seen (or heard by lightly tapping a piece). Keep working areas clean and tidy and remember to tell artists to wash hands as dirt and grease will prevent colour and glaze from adhering.

Plates and Tiles: Plates and tiles benefit from the use of tile setters or plate cranks as (a) this will make better use of the kiln space and (b) low height layers of shelving prevent heat transfer and air circulation.

Large Items: Avoid heating large flat objects or very tall items directly on the kiln shelf. Raise the item by 1" using a combination of props and stilts. This will promote even heat distribution during the heat and cool down sections of the kiln firing process.

Batts and Battwash: Batts are kiln shelves

Battwash is an optional product that is applied to kiln shelves for added protection against glaze adhering to the kiln shelves.



**Props:** Props are posts or shelf risers. Typically, kiln furniture sets include an assortment of props (different height options). Props can be stacked on top of each other. Country Love Crafts sell a range of easy buy stilt packs for new businesses (see below) or alternatively, props can be purchased individually. Don't forget that props can be used to create height variance too.

CLKTOP 45/60 PP x24 assorted sizes CLKTOP 100 PP x44 assorted sizes CLKTOP 140 PP x56 assorted sizes CLKTOP 190 PP x78 assorted sizes



Stilts: Stilts are supports used to separate glazed articles from a shelf during firing. Melted or melting glazes/underglazes will stick to anything it touches. Country Love Crafts sell a range of easy buy stilt packs for new businesses (see below) or alternatively, stilts can be purchased individually. Stilts are not included in the kiln furniture kit.

CLKTOP 45/60 SP x12 assorted sizes CLKTOP 100 SP x20 assorted sizes CLKTOP 140 SP x26 assorted sizes CLKTOP 190 SP x34 assorted sizes





A stilt stone removes stilt marks from the glazed piece after firing. Some stilt marks are particularly sharp so care must be taken.

Round Objects and Baubles: Single point stilts are great for firing round objects like baubles. Remember to remove glaze/underglaze from areas that touch the wire. Also remember than longer lengths of wire (i.e. the single point) may bend when hot if the item on the stilt is heavy. Single point stilts are not available in the stilt packs.

Beads and Pendants: A bead or ornament tree will prove useful for firing beads and pendants. Remember to remove glaze/underglaze from areas that touch the wire e.g. the bead holes. To make your own bead tree, simply "bridge" a wire between 2 castellated props (bead replacement wires are available to buy singularly).

Sensitive Colours: Improper colour development, colour loss or poor textures are common problems with pink, purple and red glazes or underglazes. These are oxygen sensitive colours.

With these colours (and if possible) avoid placing pottery close to the direct heat of the kiln elements.

## Dry Footing or Stilting:

Check that glaze or colour has been removed from the dry foot area (usually found at the base) or remember to use a stilt when loading the item into the kiln. If you do not follow this process, the item will stick to the kiln shelf during the firing process.



**Customer Identification:** Devise a good process for identifying fired pieces. Add a code or form of ID prior to glazing and remember to consider all parts of a customer's piece i.e. on trinket boxes, remember to ID both the lid and base or keep them together during the firing process. An underglaze pencil is good to handwrite codes. Underglaze pencils are a special writing appliance that is permanent during the firing process - normal pens and pencils (including permanent varieties) will fire off.

## Kiln Loading Quick Guide

Loading a kiln for firing is not a simple matter of placing shelves and stacking ware. The more thought and planning that is put into loading, the better the results.



Make sure the base shelf has not been placed on the actual base of the kiln i.e. make sure it has been placed on props (minimum 1" high) to ensure there is correct air circulation underneath the base kiln shelf.

Check the items. Has it been dry-footed or will you use a stilt? Is the item fully dry? Are all the products used on the item compatible and do they share the same recommended firing temperatures? Do some pieces have underglazes or glazes that could potentially drip or "spit"?

Carefully plan where you will place each item:

- Remember not to knock the THERMOCOUPLE as you load the kiln. The Thermocouple is classed as a "wear and tear" item and will need replacing if damaged
- Place taller items in the middle of the kiln and shorter items on the outside. This is known as the pyramid method – taller items may block the heat from the kiln elements if placed on the outside of the shelf.
- Consider using half shelves for taller items (a half shelf will utilise space more efficiently and improve air movement).
- Remember to leave enough space around each item to allow for thermal expansion (at least one or two
  centimetres around each item. More space is required over the top of the item (particularly with short
  pieces like plates) to allow for heat transfer from elements and airflow etc.
- Mix thick and thin walled item together on shelves so that they are not competing for heat.

the kiln area, check that there is nothing around or on top of the kiln that is a fire hazard.

 Do not overload the kiln otherwise the airflow or heat transfer will be affected. Also, an overcrowded kiln does not provide enough oxygen for the carbon to be eliminated so you may find some pieces could potentially look blackened after firing.

Consider where each shelf will be placed. Remember to ensure that at least one or two elements can heat each layer of shelving.
Finally, check that the kiln firing programme is correct before pressing the start button. Also, before leaving