

Cold Enamelling

Introduction:

Cold enamel is a great product for many reasons. The finish is as attractive and resilient as traditional enamelling, however there is no need for a kiln. This makes it affordable and the process extremely simple. Once mastered, you will be able to produce items for yourself and beautiful gifts for friends.

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You will need:

- 1 Newspaper
- 2 Rubber gloves
- 3 Apron
- 4 Mixing Sticks
- 5 Measuring cups
- 6 Cold enamel colour
- 7 Cold enamel hardener
- 8 Methylated spirit
- 9 Jewellery findings
- 10 Boxes (optional)









How to mix the enamel

Before you begin working note the following points carefully. The best working temperature is about 20°C. If the workroom is colder the material will be more difficult to use. The colours must always be mixed with hardener before use. The correct ration is 2 PARTS COLOUR to 1 PART HARDENER. This proportion is extremely important and measuring should be done with care. The mixture will completely cure to a hard finish in approximately 24 hours. If there is an imbalance in the proportions the cold enamel will not set properly. The best procedure is to use mixing cups which have accurate measure markings.

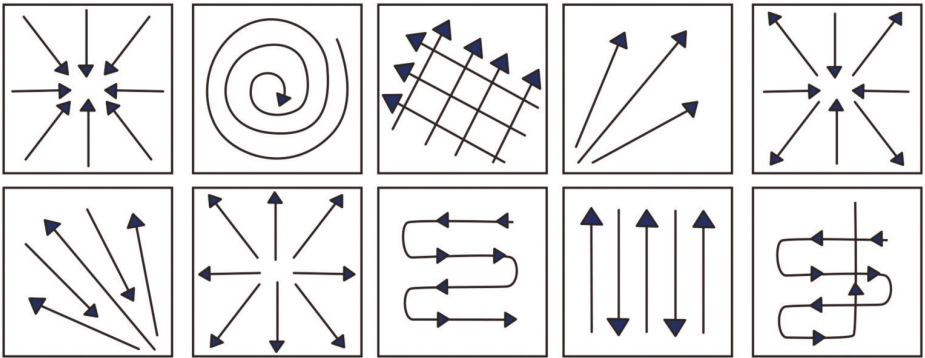
After measuring, mix well and allow the mixture to stand for 10 minutes to ensure that there are no air bubbles present. The mixture will remain workable for approximately 1 hour. After this time it will thicken very rapidly but cant still be used with care on sloping or vertical surfaces. When larger amounts are required, it is advisable to pour the mixture into a wider, saucer like container. The thinner the layer the longer the enamel will remain workable. This should extend the mixture's working time by approximately 30 minutes. Although the colours have a very long shelf life, if they should crystallise, simply place the bottle of colour in a bowl of warm water until it becomes liquid again.

Whilst wet, most stains may be removed with white spirit and soap. Once dry, however, the cold enamel cannot be removed. Always wear a pair of plastic or rubber gloves as some sensitive skins may be allergic to this material.

All colours, whether they are opaque or transparent, are intermixable. To create a unique colour always mix the desired colours together first before adding the approximate amount of hardener. Transparent colours can be made opaque by mixing with the opaque colours. Cold enamel will work on most materials with the exception of PVC and rubber.

Applying and directing the enamel

Cold enamelling is easy to manipulate by directing the colour. Have a play by covering a matchbox with a base colour. Whilst wet, mix another colour and apply it on top of the base colour. Using a mixing stick, needle, or an old pen direct where you want the second layer to go. Experiment with the use of different colour combinations or several colours for endless possibilities. Once completed, leave to dry for 24 hours in a dust free environment. Avoid the temptation of touching it as you may be left with fingerprints on the surface. Use the arrows below as guides to create different patterns.



Surface finish



The natural surface finish of cold enamel is fairly high gloss and occasionally you may require more of a matt surface. To achieve this, the article should be held in the steam from a kettle or steam iron before the cold enamel has properly hardened (after 3-4 hours). The steam vapour will make the surface dull and it will remain so after hardening. Be careful not to burn yourself.

Adding imagery as decoration

Using photographs within cold enamel is a distinctive way of personalising your creations. You can use photographs of family, friends and holidays, or choose an item which is memorable, like a gig ticket. Simply cover your chosen surface in the layer of enamel which will become the background or border to your image. Allow two hours until it becomes slightly tacky. Position and tap the image down on to the enamel. Allow to dry for 24 hours.

Make up a mix of clear enamel and cover the surface completely. Remember to tilt the piece so that the light can pick up any untouched areas which will need encasing. There are many items which can be added to cold enamel which will give interesting results. Try experimenting with beads, glitter, sequins, shells, coins, cotton thread and pressed flowers. These all work well with cold enamel. Use the same method as you would when working with images. For 2D pieces try wrapping paper, foil or cellophane. The possibilities are endless!





Creating jewellery with cold enamel

Jewellery findings are readily available and many are complete with blank smooth surfaces ideal for applying cold enamel. You can even cut your own shapes from metal sheet, plywood, or strong cardboard. If using metal, always clean the surface first with methylated spirit on a wad of cotton wool or a clean cloth.

Using the same working methods as before, apply colours to your chosen surface and leave to dry for 24 hours. For example if you want to make a brooch and would like to attach a safety pin on to the back you can use the clear enamel to secure it.

This method can also be used with rings. If you wish to attach a larger surface plated to the ring's band, the enamel can be used to glue the two components together. If using cold enamel on a bangle wait about an hour for the mixture to thicken this will help it grip around the curved edges when pasting it on. Be patients! You may not be able to cover the whole of the bangle's surface area in on application.







Key rings and boxes

The beauty of making your own key ring is that you can use any image or create your own text to personalise it.

When using cold enamel on key rings and boxes, simply begin by distributing the enamel over the surface of your object. Once the enamel begins to bleed outwards, guide it to meet all of the edges by using the mixing stick. If you do decide to cover a key ring, make sure that the enamel doesn't leak in to the hole, as this will affect how your key ring moves.

Images are great on top of boxes, as the process is relatively quick and simple yet the finished look is extremely professional. If you wish to decorate a box with an image follow the same procedure outlined on page 7. Boxes can be decorated with cold enamel easily and used for gifts, homeware and unique storage. You could also embed items such as beads in the enamel in the lid for further decoration.



Working on glass and acetate

Cold enamel can be used on glass to decorate a window or cupboard door. Begin using a glass relief outliner paste to draw your design onto the glass. Next, apply the enamel within the areas you wish to be filled. Choose as many colours as desired. It is advisable to keep designs small as you will use a lot of enamel if it's a large surface area. Use a fine, bristled brush with good spring to paint on the cold enamel. A synthetic brush will do the job perfectly.

Cold enamel will adhere to most surfaces but not to acetate. Therefore you can design on acetate as you would on glass; however for the design to be permanent you must peel it from the acetate once it has hardened. This hardening will take 24 hours. Once it has hardened, it can be easily glued to another surface. The glue used will depend on what surface the design is to be adhered to, but bear in mind the glue will need to have good grip and a quick setting time. If you wish to apply your work to a slightly curved surface such as a bottle, gently heat the item and carefully mould it to shape.



Simple casting techniques



With cold enamel it's easy to create small, clear casts in which you can embed small items such as dried flowers, beads or glitter.

As the enamel cures, it is very sticky so the mould you choose needs careful consideration. It's advisable to use silicone based moulds and avoid using latex or moulds containing plastics similar to those found in yoghurt pots. Even just mixing your cold enamel in yoghurt pots can have a detrimental effect on the setting times and results. Always bear in mind the shape of your mould with regard to undercuts as you don't want the frustration of cutting your mould to remove your cast, and therefore possibly damaging your finished piece!

1. Mix enough clear cold enamel to fill the bottom of the mould. This later provides a base for your item to sit on. When deciding on the depth of this layer bear in mind that it should not be so deep that the item you are embedding will protrude from the top of the tray. Leave to set.
2. Sit the item to be embedded onto the layer of enamel and cover with another layer making sure that the item is completely covered. Remember at this time that the cast may be bottom side up so 3D items will need to be put upside down. Leave to set.
3. Once the 24 hour setting time has passed, turn the mould upside down and firmly press to release the cast. This is why a flexible mould is so useful. If the cast will not pop out it may not completely set. Leave for a few hours longer and try again.
4. Once you have free your cast from it's mould, the process is complete.
5. If you would like to decorate the surface of your cast, you can add embellishments by sticking with PVA glue. You could also try painting with different coloured enamel. Due to the cast being dry any enamel that is later applied to the surface will have a relief effect.

Cold Enamelling Supplies

Cold Enamel Colours 20g: Available in a range of transparent colours

Cold Enamel Colours 30g: Available in a range of pearl, sparkle and glow in the dark colours

Hardener: 500ml and 100ml bottle. To be mixed 1 part hardener to 2 parts colour

Plastic Mixing Cups: Pack of 10

Mixing Sticks: Pack of 20

Plain Match Boxes: In a set of 10 or 12

Mini Paper Mache Boxes: In a pack of 10

Wooden Key Rings: Pack of 10.
Approximate size 45mm

Rings: Pack of 10 17mm diameter, flat setting plate, silver plated

Rings: Pack of 20 10x8mm, oval setting plate, silver plated

Ear Fittings: Pack of 10, silver plated

Wooden Bracelet: Available in 25mm and 19mm thickness



**Intro packs also available.
The ideal set to get you going.**





For more information on our range of cold enamel resources including class packs, jewellery accessories and enamels, contact us via:

Call: **+44(0)116 269 7711**

Online: **www.dryadeducation.com**

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