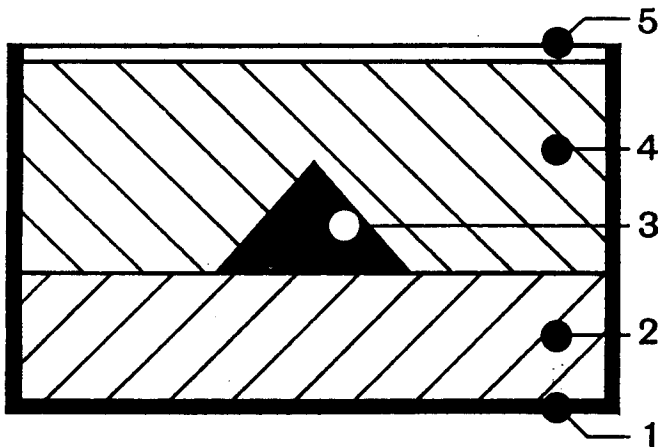


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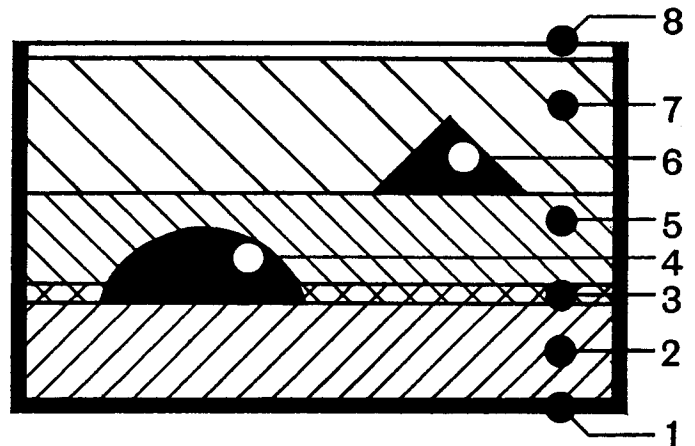
KLEER-KAST

DIAMOND CLEAR LIQUID EMBEDDING RESIN



A SIMPLE EMBEDDING
(Drawing D/1)

1. The mould.
2. The first layer of resin-mix.
3. Subject to be embedded such as a shell or a coin which is heavier than the resin and will not float to the top.
4. Second layer of resin-mix.
5. Rim of mould.



EMBEDDING TWO SUBJECTS IN TWO LAYERS
(Drawing D/2)

1. The mould.
2. First layer of resin-mix.
3. Adhesive layer (see paragraph 12).
4. Subject to be embedded which would float to the top if it is lighter than the resin.
5. Next layer of resin.
6. Subject such as shell or coin, which does not float to the top.
7. Fourth layer of resin.
8. Rim of mould.

CONCISE INSTRUCTIONS

HOW TO EMBED TWO SUBJECTS IN DIFFERENT LAYERS (see Drawing D/2 above)

- a. Fill the mould with water and measure the water to ascertain the exact quantity of resin required. Caution: the mould must be dried thoroughly before you cast the resin.
- b. Polish the mould (see paragraph 2 below).
- c. Mix a quarter of the resin required for the entire case with the hardener, counting the drops carefully (see paragraphs 4 and 5) and pour into the mould.
- d. Wait until the resin has gelled (see paragraph 9). If it is a subject which is liable to float to the surface such as a sea horse, apply an adhesive layer before you have placed the subject on the gelled surface (see paragraph 12).
- e. Watch for air bubbles (see paragraphs 7 and 8) when applying the next layer. These may form around the item to be embedded (see paragraph 11). When this layer has gelled apply the next subject such as sea shell, coin, etc, onto the surface. If it is a heavier subject, an adhesive layer is not necessary.
- f. Now apply the last layer. Beware of excessive heat formation which may cause cracking (see paragraph 6). Water cooling may reduce the danger of cracking.
- g. It is recommended to wait until the heat has disappeared in each layer or to use less hardener in the last two layers.
- h. Wait a minimum of 24 hours before removing the cast from the mould (see paragraph 14 and 15).
- i. Range of casting moulds available from Norski Holdings – Craft Department.

FULL INSTRUCTIONS

1. KLEER-KAST RESIN is specially designed for the making of transparent and coloured casts. The process is easy, but you should first study the following instructions.
2. With a piece of clean cloth, apply a thin coating of Norski Release Wax to your mould. Allow to dry and polish. Repeat this treatment once again to obtain a well polished surface.
3. Next measure the resin into a clean mixing container. In order to make a casting, the liquid hardener supplied in the bottle should be added to the resin, counting the drops carefully, and then mixed in.
4. Suggested hardener quantities at Normal Room Temperature (20°C).

Quantity of resin used for one complete casting	Amount of hardener, expressed in drops to be mixed into resin
10ml of resin	11-12 drops of hardener
20ml of resin	17-20 drops of hardener
50ml of resin	25-30 drops of hardener
100ml of resin	25-30 drops of hardener
200ml of resin	30-35 drops of hardener
300ml of resin	35-40 drops of hardener
Any casting over 300ml	Not more than 1 drop of hardener to 10ml resin

5. These quantities should be used as a guide since mould shape and room temperature can affect the resin gel time. Generally speaking, larger castings require less hardener to prevent cracking.
6. It cannot be over emphasised how important the shape of the mould is, since for identical quantities of resin and hardener cracking may occur in a squat thick casting – yet not in a large thin one.
7. Mix resin and hardener thoroughly for about 2 minutes. You should do this slowly to avoid entrapping air bubbles. The resin is now activated. Wait another 3 minutes until all air bubbles have risen and disappeared.
8. You can avoid the formation of air bubbles in the resin, by placing the mixing dish in warm water for a while or, in the case of small quantities, 150mm to

200mm away under an electric table lamp bulb.

9. Now pour the activated resin over the bottom of the mould. Leave the resin to gel (when the resin is semi-hard, it is referred to as having gelled). This state can easily be ascertained by tilting the mould to see the resin does not run.
10. At normal room temperature (20°C) hardening should start in about one to two hours.
11. Place the object to be embedded on the gelled resin and fill the mould with newly activated resin. At this stage you should check for trapped air bubbles which should be released by gently moving the object with a pair of tweezers.
12. Items which are less dense than the resin will tend to float and you should bond them to the gelled layer with activated resin. A safe rule is that items which float in water will also float in resin. Use the *foil dish* to fix your display. Barely cover the dish with the smallest amount of resin and add 4 drops of hardener. This will make a quick-hardening adhesive.
13. More than one object may be embedded in the same casting; by building up with several layers of resin you can stagger the objects at different heights (see drawing D/2).
14. KLEER-KAST RESIN will shrink during curing. For this reason you should experience no difficulties in removing the casting from the mould. If you use a porcelain or a glass mould you may assist the release of the casting by alternate applications of boiling hot and cold water. You can also use a rubber sucker to pull small castings away from a mould.
15. The removal of very small shapes which have been cast for fastening to jewellery findings (i.e. metal work blanks for ear rings, etc) can be eased by fastening the findings to the hardened resin with a small amount of activated resin (see paragraph 12); when the two have bonded together

you may be able to pull the castings free. If they do not release easily they are just not ready. Wait another 24 hours and try again.

16. You can use pigments to create a multitude of different results ranging from a slight tint of the cast to vivid multicoloured effects. You may create a particularly effective casting by pigmenting the bottom layer of resin only.
17. You may wish to embed items for scientific and educational purposes as well as stamps, coins, medals, emblems, china, coloured cloth, insects, etc. Screws, nuts and other small items such as parts of old clocks and watches can be attractive subjects for embedding. Brooches, cuff links, etc of your own design and colour scheme can be made by the fascinating hobby.
18. You can even design your own initials by carving them into a flat candle-wax surface using a hot metal rod or similar tool. A coloured resin mix is poured into the depression and after hardening the design is laid on to a gelled clear cast surface. Before doing this you must make sure that all the wax has been removed from the design. Attractive, transparent and illuminated house numbers can be made by this method.
19. When you take the casting out of the mould you will find that the surface which was open to the air is not even. You can obtain a good surface by placing a piece of "wet and dry" abrasive paper on a flat surface and then rub the casting to and from using a little water on the paper. Proceed from the coarser (No. 180) to the finer (No. 600) paper to obtain a smooth matt finish. Then you polish with a soft dry cloth using a metal polish, in order to obtain a final mirror-like finish. You should do this work immediately the casting is released from the mould and before it has reached maximum hardness.

SAFETY PRECAUTIONS: Do not use near fire or flames. Harmful or fatal if swallowed. Use disposal gloves to avoid skin contamination. If resin comes into contact with skin, wash uncured resin off with soap and water. Wear safety glasses to avoid eye contamination. Mixed formulation contains Polyester Resin and Catalyst. If swallowed do not induce vomiting. Give a glass of water. Contact a doctor or the Poisons National Information Centre on 03 474 7000 (urgent information only). Eye contamination: Hold eyes open and flood with water for at least 15 minutes. See a doctor immediately.

CONDITIONS OF SALE: The use of these materials represents a skilled operation involving many factors beyond the manufacturer's control and therefore this formulation, made to a proven formula using carefully selected pure ingredients and under expert technical supervision, is sold on the express condition that the buyer assumes all responsibility for any results whatsoever, which might occur.

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