

FULL INSTRUCTIONS

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 **and if you are doing something a little different, then give us a call and let us share all our info with you in order to give you the best chance of a stunning result.**

1. With a piece of clean cloth, apply a thin coating of Norski Release Wax to your mould. Typically moulds made of plastic are the easiest to work with as they are pliable when it comes to releasing your product. Allow to dry and polish. Repeat this treatment once again to obtain a well-polished surface.
2. 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.
3. Suggested hardener quantities at Normal Room Temperature (20°C).

10ml of resin	11-12 drops of hardener	5-6%
20ml of resin	17-20 drops of hardener	5%
50ml of resin	25-30 drops of hardener	1.5 – 2.0%
100ml of resin	30-40 drops of hardener	1.5 -2%
200ml of resin	30-35 drops of hardener	.8%
300ml of resin	35-40 drops of hardener	.6%
Any casting over 300ml	Not more than 1 drop of hardener to 10ml resin	

4. 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.
5. It cannot be over emphasised how important the shape of the mould is, with identical quantities of resin and hardener cracking may occur in a squat thick casting - yet not in a large thin one.
6. 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.
7. 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 from a 100 watt light bulb.
8. 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.
9. At normal room temperature (20°C) hardening should **start** in about one to two hours. Full curing typically will take 1-2 days but this can vary quite a bit depending on the shape of your article. Normally this product is used in **staged pours** as it is an embedding resin and the 1-2 hours refers to allowing the product to go hard enough to support an object to be embedded with another pour over the top.

10. 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.
11. 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.
12. 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 D2).
13. 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.
14. 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 11); 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.
15. You can use Norski pigments to create a multitude of different results ranging from a slight tint of the cast to vivid multicoloured effects. You can create a particularly effective casting by pigmenting the bottom or top layer of resin only.
16. You may wish to embed items for scientific and/or 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. Your ideas are the only limitation when working with this product.
17. 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. For example attractive, transparent and illuminated house numbers can be made by this method.
18. When you take the casting out of the mould you will find that the surface which was open to the air is not even and will remain tacky. 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 back and forth while 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 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.
19. Alternatively, a coating of 'Norski Doming Resin', (available at most Mitre 10, Hammer Hardware and Bunnings stores) will seal off the surface that is still exposed to the air.

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.