



Resin Flowers Guide

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KITS

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Resin Flowers Guide

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Introduction

The aim of this guide

Preserving flowers has been an artform enjoyed by people for thousands of years. With so many techniques to dry and preserve their natural beauty this step-by-step guide takes you a step further, showing you how to encapsulate the flowers in crystal clear resin.

The processes and techniques in this instruction guide are based upon the complete 'Resin Flowers' kit as demonstrated in the accompanying video tutorial - where we show you how to cast a single rose in resin to make a simple, yet beautiful resin paperweight - but can be scaled to suit your own project.



Alternative projects could include creating large scale castings encapsulating full bouquets or delicate jewellery pieces using tiny flowers and petals, but whatever the project size the processes and techniques remain the same. Casting your flowers in resin will protect them for many, many years to come and is a fantastic way to turn flowers, greenery and other organic material into beautiful centrepieces and pretty jewellery pieces.

Many makers use the techniques covered in this guide to produce sentimental castings using memorial or wedding flowers or simply their favourite flowers. It's possible to achieve amazing results by following the video tutorial and this guide to create castings you can be really proud of!

Our professional quality GlassCast 50 epoxy casting resin included in the kit is the best resin for this type of project - it's specially designed for bubble-free deep section casting and can be poured to a depth of 25-50mm into a silicone mould and can be layered.

The Resin Flowers kit includes all the materials and accessories to get you started on your resin flower journey. Each kit includes enough GlassCast 50 for two castings in the cube mould supplied in the kit, all you need to source is your chosen flowers.

If you enjoy resin flowers and wish to make more you can stock up on supplies from the GlassCast Resin website or, alternatively try one of our other Clearly Creative Kits!

Before You Begin

The first step in creating your own epoxy resin flower paperweight is deciding on the flower you would like to work with. This guide will ensure that you have all the information you need to produce your own timeless casting and how to effectively dry your flower ready for preservation in resin. In the tutorial and this guide we demonstrate the process using a classic single rose and we would recommend that you use a similar bloom whilst you are learning and perfecting the technique.

To achieve stunning results yourself just follow this step-by-step guide, and our accompanying video tutorial which tells you everything you need to know about producing your own resin paperweight and achieving professional results like these;



What's in the kit?

Each Resin Flowers Kit includes:

- 500g GlassCast 50 epoxy casting resin
- Silicone cube mould 65mm
- CrystalDry flower drying silica crystals
- Abrasive paper mini kit and polishing compound
- Nitrile gloves, mixing pots and sticks.



What else you might need

- Eye protection
- Protective apron or old clothing and a protective mat or cover for your work surface
- Digital scales and a timer
- An airtight container
- A cover to place over the project while it cures
- Some scissors and tape
- Protective workgloves for demoulding the casting

Safety Information

IMPORTANT SAFETY INFORMATION:

GlassCast 50 is a chemical product. Before storage or use you must download and read the accompanying safety datasheet which can be found here:

<https://media.glasscastresin.com/datasheets/EC-SDS-CCK-RFK-Resin-Flowers.pdf>

A Summary of the most important information is as follows:

- Always wear nitrile gloves when handling the resin or hardener
- Never touch uncured or partially cured resin with your bare skin
- Wear suitable eye protection when handling the resin or hardener

Although GlassCast 50 Resin is solvent free and has almost no odour you should still work in a well ventilated area or wear a vapour mask.

Working Environment

Ambient Temperature, Pot-Life and Cure Time

Epoxy resins are highly sensitive to ambient temperature and moisture. Always make sure that you store GlassCast 50 at room temperature (20-25°C) which will give it a lovely runny consistency.

NOTE: If your resin is not perfectly clear when you pour it then it has become cold and crystallised.

Please see our "How to reverse Crystallisation" video here:

www.glasscastresin.com/reversing-resin-crystallisation

To achieve the best results, we recommend working in a room temperature of 20°C. GlassCast 50 can be used in temperatures from 15 to 25°C but higher temperatures will reduce the pot-life of the resin significantly (shown in the table below). Epoxy resins are very susceptible to moisture so it's important to make sure the environment is dry and heated.

Ambient Temperature	15C	20C	25C
Pot Life	80 mins	60 mins	40 mins
Initial Cure	96 hours	72 hours	48 hours

Airborne Dust and Contamination

Whilst the resin is still in the early stages of its cure, it is important to keep airborne dust and contamination to a minimum. Before you begin you should ensure that the area you're working in is as free as possible from dust and dirt.

Good ventilation is a must whilst you're working, in order to minimise airborne dust and contamination, it's best minimise air movement in the room as soon as you've finished working.

Step-by-Step Guide

1. Overview of the Process

- Selecting and preparing the flower(s)
- Drying the flower(s) using flower drying silica crystals
- Setting up the flower in the mould
- Calculating how much resin you will need
- Measuring and mixing the resin
- Pouring the resin layers
- Bubbles and leaving to cure
- Demoulding, flattening and polishing

2. Selecting, Preparing and Drying the Flowers



Carefully selecting your flower(s) will help to ensure that your finished paperweight will be amazing. It's important to remember that the fresher your flower is at the point of drying - the better the dried flower will turn out. It's also worth bearing in mind that different types of flowers and colours will give different results.

There is lots more information in our flower drying guide:

<https://media.glasscastresin.com/datasheets/crystaldry-flower-drying-silica-gel-guide.pdf>

To prepare your flowers ready for drying you will need to cut the stem between one and two centimetres from the base of the flower head. Make the cut at a 45° angle, this will increase the surface area of the opening and provide a larger surface area for the moisture in the flower to be drawn out through.

Your flower may have some damaged petals but we recommend leaving them on the flower during the drying process to add protection to the rest of the bloom. These will be removed once the flower is dry before moving on to the resin stage.

It's now time to dry the flowers using the CrystalDry flower drying silica crystals provided in the kit.

Start by partially filling an airtight container with a layer of the crystals, then place the flower stem down into the crystals. Carefully fill up the container by pouring around the flower head and very gently pour the crystals inside the flower head.

When the flower is completely covered, put the lid back on to seal the container and make it airtight, then leave in a warm, dry place for a few days.



Drying times vary depending upon the type of flower being dried, but can take between 3 and 7 days.

To check if the flower is thoroughly dry, begin pouring the crystals out of the tub to uncover the flower head. Take your time and be gentle as the flower is now in a much more delicate state than before drying. Once the flower head is exposed, gently lift it out of the remaining crystals and turn it over, gently tap the base of the flower to loosen any crystals trapped inside.

You will know if the flower is completely dried if the petals have a papery, crunchy texture like autumn leaves and there will probably have been a colour change.

Next, remove any damaged petals - any bruising or cuts on the petals could allow the resin to get into petal and give it a wet or transparent appearance - this will affect the overall look and make that petal look distinctly different from the others.



TIP: If you don't think the flower is completely dry, simply place it back in the crystals, cover and reseal, and leave for a few more days. It's very important that the flower is completely dried out before being encapsulated in resin. If it isn't properly dried, the flower would continue to decompose in the resin over time and ruin the project.

3. Setting up the Flowers in the Silicone Mould



To achieve the suspended rose effect create a simple clamp using lollipop sticks, cocktail sticks and tape to secure the rose in the image to the left:

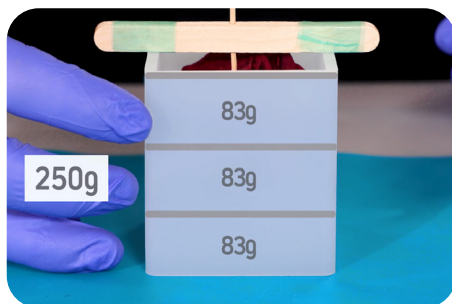
- Tape together two lollipop sticks, binding them tightly at both ends
 - Gently push the cocktail stick into the centre of the flower head (from the top) taking care not to push it straight through
 - Then push the opposite end of the cocktail stick between the lollipop sticks to make a 'T' shape
- Simply check the position of the flower against the side of the mould and adjust if necessary
 - Finally place the clamp over the mould, and ensure the flower is in the correct position

4. Calculating how much Resin you will need

To completely fill the silicone cube mould supplied with the kit you will need around 250g GlassCast 50.

This depth could be achieved in two pours, however to reduce the possibility of heat build up during the cure we recommend filling the mould with three shallower pours.

The first image below show that each pour would use 83g of GlassCast 50, however due to the volume of the flower being encapsulated we can round down each layer to 80g as seen in image 2, giving a new total of 240g for the project.



In the kit you are provided with 500g of GlassCast 50 which is more than enough to create two paperweights in the mould provided. GlassCast 50 is mixed by a ratio of 100 to 45 by weight or 100 to 50 by volume.

5. Measuring and Mixing the Resin

For each layer you will need to carefully weigh out 55g of part A (resin) and 25g part B (hardener) into a clean cup. Slowly and thoroughly mix the two parts together for 3 minutes.



Scrape the sides and bottom of the cup every so often to ensure that no unmixed resin clings to the sides.

By mixing slowly you will reduce the amount of bubbles that get into the casting. When the 3 minutes is up, transfer the mixture to a second clean cup and mix again in the same way for a further 3 minutes. This process is called double-potting and is the best way to ensure a thorough mix.

Once fully mixed allow the pot to stand for a few minutes, this will allow any bubbles present in the mix to rise to the top and pop!



6. Pouring the Resin in Layers

Once you have prepared your resin mixture it is time to pour the first layer into the mould. This 1st layer will serve to secure the base of the flower in the resin enabling the subsequent pours to fully encapsulate the flower head.

Layer 1

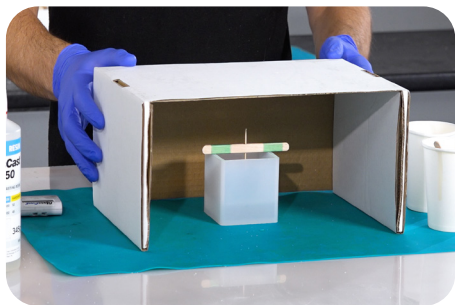


Pour the resin mixture slowly and carefully into the base of the silicone mould avoiding pouring the resin on the flower during layer 1.

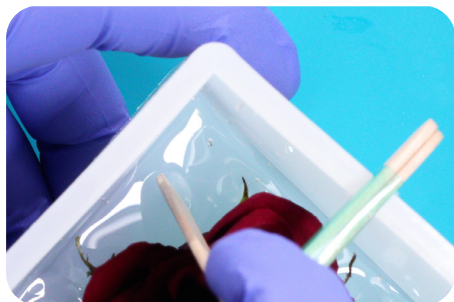
This layer will hold the bottom of the flower in position and ensure that the flower is in the correct position so it will be completely encapsulated on all sides, pouring in this way will also minimise bubbles.

Before leaving to partially cure, check for bubbles - you may need to pop a few stubborn bubbles which can cling to the sides of the mould or the petals.

Between layers you will need to cover the project to stop dust landing in the resin. However it's important that you allow some airflow. The environment also needs to be dry and a consistent 20°C.



In between layers 2 and 3 you will need to allow the resin to partially cure before pouring the next layer. We need to let the resin 'firm-up' but not fully cure so that we can pour on the 2nd layer, this will take approximately 12 hours.



The level of cure we are looking for before pouring the next layer is for the resin to feel firm but still slightly tacky.

This is what we call the 'b-stage' which means that the resin layers will crosslink and result in less visible layer lines.

To check if the resin is at the correct stage, you should be able to press it but no resin should stick to your glove or mixing stick.

Layer 2



Now the flower head is secured in the 1st layer of resin you will need to remove the clamp. Carefully cut the tapes and remove the lollipop sticks, then very gently twist and pull out the cocktail stick from the centre of the rose.

Prepare the 2nd batch of GlassCast 50, following the instructions in section 5 and leave the mix to stand again to release bubbles.

With the 2nd layer of resin carefully and slowly pour the mixture into the flower head to help to push out any trapped air from between the petals. You may need to keep checking for bubbles, then cover as before and leave for a further 12 hours to reach the B-stage.



Layer 3

It's now time to pour the final layer, again following the same measuring, mixing and pouring instructions as with the 1st and 2nd layer. Pour the resin slowly into the flower head again to push out trapped air.

Fill the mould up to the top to ensure the flower is completely encased on all sides with resin, then for the final time, cover and leave to fully cure.

6. Bubbles

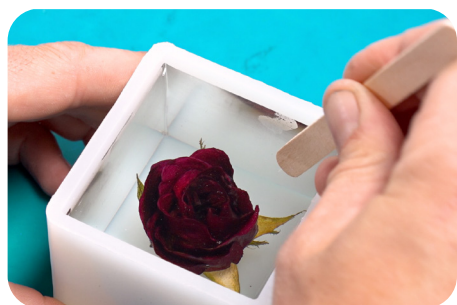


The full cure time for GlassCast 50 is 48 hours.

Over the first few hours of the cure make sure that you check back a few times and pop any bubbles that may appear in the final layer.

Remember: the 48 hour cure time is subject to an ambient environment of 20°C, if your temperature is above or below this it can increase or decrease the cure times (see table page 5).

7. Demoulding, Flattening and Polishing



After 48 hours have passed your piece should be cured. To check if the casting is ready to be demoulded use a mixing stick to press firmly on the surface.

It should feel solid and no marks should be left on the surface of the casting.

To be completely sure pick up the mould and feel all around - it should feel rock solid!

The casting is now ready to be removed from the silicone mould. We recommend that you wear work gloves as the top face where the resin meets the mould can result in a meniscus or raised edge which can be very sharp.

Break the airlock by prising and loosening the mould all around the cast block, then turn it upside down and press firmly down, pushing the cube out of the mould.

It looks amazing - but the top face will need to be flattened and polished to make it completely flat.

Flatting

To flat the surface you will need to follow the steps below ensuring that you work through the grits (supplied in the kit) thoroughly before moving on the final polishing stage:

- Starting with 120 grit abrasive paper, wrap it around a block (this will help to keep the surface flat)
- Sand in one direction, this helps to ensure the whole surface is equally abraded
- When the whole surface is abraded, change the paper to 240 grit and repeat the process BUT this time rotate the casting 90° and sand in the opposite direction
- Before moving on to the next grit check that all scratches have been removed from the grit below
- Repeat the process for each grit abrasive paper, ensuring that you turn the casting each time

Polishing

Now for the final polish - using the polishing compound supplied in the kit on a soft cloth - work the compound in a circular motion until the compound has completely diminished.

Wipe away any residue and repeat as required until you have reached a high gloss finish. It's possible to achieve the result by hand polishing but if you have a polishing machine this section will be faster and considerably easier.

You can find more information regarding the flatting and polishing epoxy available in the Learning Area of the GlassCast Resin website which is really useful for larger projects and if you are using a power polisher.



9. Congratulations



There you have it - an amazing rose paper-weight - it's stunning!

The mould has given us a smooth surface all around and the top face is like glass.

From the instructions in this resin flowers guide and the accompanying tutorial the techniques and processes shared can be adapted to produce a huge range of resin flower castings!

10. Alternative Projects

The Resin Flowers kit is perfect for getting started in drying and preserving your flowers to last for many, many years to come. Making it a fab gift for that creative person in your life - even if that is you!

There are lots of possibilities to what can be achieved just by using the kit depending upon the type of flower you use, the mould type and if you add any glitter or flakes to give it some sparkle.

The techniques and processes covered in the tutorial can be scaled up or down to encapsulate entire bouquets or right down to tiny, delicate flowers and petals that can be used in jewellery.

Here are just a small selection of projects you can find out more about in our website gallery - enjoy!

