ACRYLIC RESIN CASTING IDEA BOOK

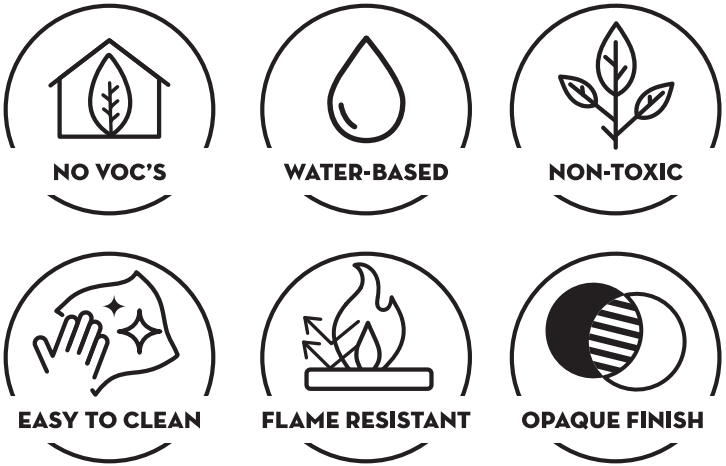
*Images for illustrative purposes only. Shape of finished examples may differ depending on the contents of the pack purchased. Colouring and design of finished examples will differ depending on the mixing process. Plants not included.

What is Acrylic Resin?

Acrylic resin is a strong, water-based material that can be used for craft casting projects to create decor items including coasters, trays and planter pots. It can also be used to create sculptures, jewellery and even as a painting surface.

Acrylic resin is a composite material that is formed when combining a reactive raw mineral base powder with a water-based acrylic resin. Acrylic resin is so versatile that it can be used to imitate surfaces, textures and colours such as wood, stone, metal and more.

This lightweight material makes a safe alternative to fibreglass and is a stronger substitute to casting concrete.



Getting Started with Acrylic Resin

Before you begin, please read the entire instruction booklet for important information. *The information in this booklet should be used in conjunction with the printed information on the packaging. Please retain all packaging for future reference.*
See SDS for additional information.

1 *Prepare your surface and work area*

Before you begin, choose a work area that is well-ventilated and free from dust.
For best results, the room should be warm, dry and out of direct sunlight. Climatic conditions may vary drying times.
Protect your workbench and surrounding area with a plastic drop sheet (not included).

2 *Materials and equipment*

Make sure you have everything you need to complete an acrylic resin casting project before you begin. Although most materials are included, there are some items that are not included in the kit.

Included in the kit:

- *Base powder*
- *Casting liquid*
- *Silicone mould*
- *Coloured pigments*
- *Varnish oil*
- *Mixing cups*
- *Stirring sticks*
- *Plastic sheets*
- *Assorted sandpaper sheets*
- *Measuring spoon (1 scoop = 19g)*

Not included in the kit:

- *Drop sheets to protect surfaces*
- *Kitchen scales*
- *Waterproof sealer (optional)*

**Contents in pack may differ from images shown depending on the pack purchased.*

3 *Mixing ratio*

The mixing ratio for the base powder and casting liquid are ***measured by weight***. *1 part casting liquid : 2.5 parts base powder*

Measure the liquid and base powder correctly and combine them well to ensure the mixture cures and reaches maximum strength.

4 *Calculating how much of each part you need for your mould*

It is important to calculate how much of the casting mixture to measure to ensure the materials are not wasted.

1. *Measure the weight of water the mould can hold.*
2. *Take that number and divide it by 2 to get the amount of casting liquid you need.*
3. *Then multiply it by 2.5 for the amount of base powder.*

Example: If the mould holds 100g of water,
casting liquid: 100g÷2 = 50g, base powder: 50g x 2.5 = 125g.

Coaster mould =
95g base powder
38ml casting liquid

Tray mould =
190g base powder
76ml casting liquid

Pot mould =
230g base powder
92ml casting liquid

5 *Pigment*

When it comes to pigment, less is more.
Below are some helpful and important tips for adding pigment into the acrylic resin mixture.

1. *Pigment should not exceed 2% of the total weight of the mixture. The acrylic resin will not cure if too much pigment has been added.*
2. *The pigments are very vivid, so add one small drop at a time until the desired colour is reached.*
3. *Acrylic resin has an opaque off-white finish. If you want your finished project to be white, do not add pigment.*
4. *Pigments can be mixed to create more unique colours.*
5. *For projects with multi colours or marbled effects, divide the acrylic resin mixture into separate mixing cups and add different pigments to each cup.* ***This process is not recommended for beginners, as the mixture will start to harden within 5 minutes, so working quickly is essential.***

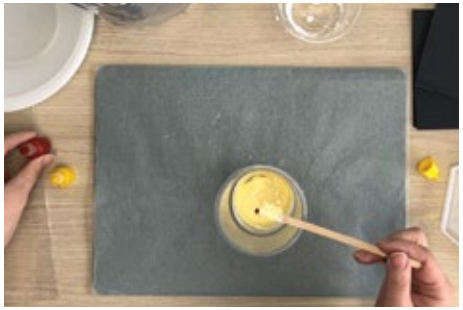
Basic Instructions

1. *Make sure the silicone mould is clean and free from dirt and dust.*

2. *Measure out the casting liquid and base powder for the mould.*
   Always pour the casting liquid into the base powder and stir well until thoroughly combined and free from lumps.

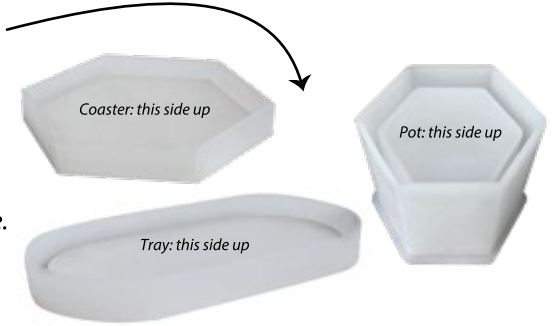


3. *Add preferred pigments sparingly to the mixture and combine well. Pigments should not exceed 2% of the total weight of the mixture. The acrylic resin will not cure or will be weak if too much pigment has been added.* ***Read Pigment section for important information.*** *The mixture will begin to set within 5 minutes. It is important to continue to step 4 immediately.*




Terrazzo Tip:
If you have made terrazzo chips, they can be added to the mixture in this step.

4 *Before pouring, make sure the silicone mould is dry and check it is the right way up. Pour the mixtute into the mould. Before the mixture sets, gently tap the sides of the mould to release any trapped air. The mould will start to feel warm. This is a normal part of the curing process.*



5 *Leave it to set in a dust free room, away for children and pets.*
Setting time: between 30 min - 3 hours. *Climatic conditions will vary setting time.*

Once the acrylic resin has set, gently demould it then leave it to cure for 24 hours.

6 *After curing, wet sand any rough areas on the surface if necessary. Starting with the coarser grit sandpaper, working your way to the finest sandpaper to buff the surface smooth. Add small amounts of water as you sand to get a smooth finish.*

7 ***Sealing the cured piece - optional***

Varnish Oil (included) -
To add a glossy sheen over the project, apply the varnish oil over the surface using a clean sponge, cloth or brush. The varnish oil will also make the acrylic resin water resistant. Note that the oil will cause the colours to darken slightly. An alternative water-based sealer of your choice can be used is you do not want the colour to darken (sold separately).

Waterproof sealer (not included) -
Seal the entire surface of the acrylic resin with a water-based, waterproof sealer if the piece will be coming into contact with water. Apply the waterproof sealer according to the manufacturer's instructions and allow to dry completely before using.

8 ***Cleaning -*** *Clean the mould and cups with warm soapy water and make sure they are dry before next use.*

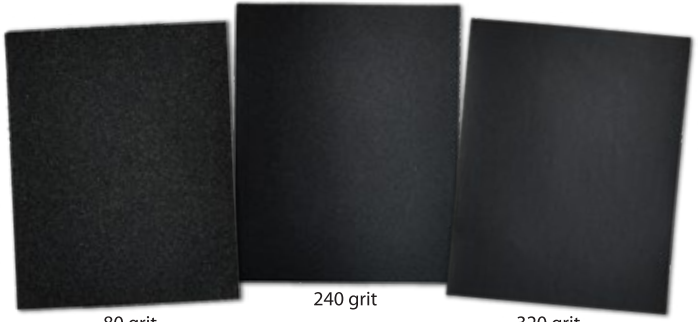
9 ***Storage -*** *Store materials at a constant temperature between 5-25ºC in a dark place, out of direct sunlight. Finish all contents within 4 months of opening.*

Wet Sanding Finished Projects

Wet sanding will smooth out any rough areas on your project and reduce any scratches and blemishes.
Make sure your project has fully cured before wet sanding.

Wet sanding can get messy! Ensure you protect all surfaces, furniture and clothing before you begin.

- *For projects without terrazzo chips, wet sanding is only required to smooth the edges and bottom.*
- *For terrazzo projects, wet sanding is necessary over the entire surface to bring out the terrazzo effect.*
- *Sandpaper should be used starting with the low grit (coarser) to the high grit (fine).*
- *It is normal for the 80 grit sandpaper to leave scratches on the surface. These will be smoothed out as you move to the high grit sandpaper.*



What you need for wet sanding

- *A bowl of water*
- *Sandpaper sheets (included in the kit)*
- *Sanding block (optional, not included)*
- *The completed, cured projects to be sanded*

Wet sanding instructions

1. *Start with the 80 grit, coarse sandpaper. Dip it in water, then rub over the project surface in circular motions, applying pressure to achieve an even surface. Rinse the sandpaper sheet with water as you go, to avoid clogging the surface.*
If you are sanding a piece with terrazzo chips, keep sanding until you are happy with the visibility of the terrazzo effect on the surface.

2. *Next, repeat step 1 using the 240 grit sandpaper. This will smooth any scratches on the surface.*

3. *Finally, repeat step 1 using the highest grit sandpaper in the kit (320 grit). This high grit sandpaper will buff and smooth the surface.*

How To Make Terrazzo Chips

Premade colourful terrazzo chips can be added to any acrylic resin casting project.

1. *Measure the casting liquid and base powder to a ratio of 1:2.5.*

   Read the following sections in the booklet for more information:
   - *Mixing Ratio*
   - *Calculating how much of each part you need for your mould*

2. *Pour the liquid into the base powder.*
   Stir well until the mixture is free from lumps.

3. *Add pigment of your choice and mix well. Refer to pigment section in this booklet for important information.*

4. *Pour the coloured mixture onto a plastic sheet and spread out to a thin layer with a stirring stick. Set aside to dry.*

5. *Repeat steps 1 to 4 in different colours if you want multi coloured terrazzo chips.*

6. *Break the dried acrylic resin into pieces. The chips are ready to add into any acrylic resin project for a terrazzo look.*

**Images for illustrative purposes only. Contents in pack may differ from images shown depending on the pack purchased.*

Creating A Two-Tone Finish

1. *Measure the casting liquid and base powder to a ratio of 1:2.5.*

   Read the following sections in the booklet for more information:
   - *Mixing Ratio*
   - *Calculating how much of each part you need for your mould*

2. *Pour the liquid into the base powder. Stir well until it is free from lumps.*

3. *Pour half the mixture into a second mixing cup.*

4. *Thoroughly mix pigment of your choice to each cup.*
   Refer to pigment section in this booklet for important information.
   Premade terrazzo chips can also be added to the mixture at this step if desired.

5. *Pour the mixture from both mixing cups into the mould and leave to dry for approximately 2-3 hours.*

6. *Demould after drying and allow to cure for a further 24 hours.*

7. *Wet sand the surface if necessary. Refer to Wet Sanding Finished Projects Section for more information.*

8. *Seal the finished project if required.*

**Images for illustrative purposes only. Contents in pack may differ from images shown depending on the pack purchased.*

Creating A Multi-Tone Finish

The method for achieving a multi-tone finish can be applied to any acrylic resin casting project.

1. *Measure the casting liquid and base powder to a ratio of 1:2.5.*

   Read the following sections in the booklet for more information:
   - *Mixing Ratio*
   - *Calculating how much of each part you need for your mould*

2. *Pour the liquid into the base powder. Stir well until it is free from lumps.*

3. *Acrylic resin is opaque off-white. Add pigment of your choice if you want a colour other than white.*

4. *Pour the mixture into the mould. Tap the sides of the mould to release any trapped air bubbles.*

5. *Repeat steps 1 and 2. Divide the mixture in half. Then add your preferred pigment into each cup.*

6. *Pour the contents of one mixing cup into one side of the mould.*

7. *Pour the contents of the second mixing cup into the other side of the mould. Tap the sides of the mould to release any trapped air bubbles.*

8. *Using a stirring stick, poke the acrylic resin mixture in an up and down motion, to create an ombre effect.*
   If your mould is shallow, move the stirring stick from side to side instead of up and down.

9. *Set aside to dry for 2-3 hours.*

10. *Demould the hardened piece and let cure for a further 24 hours.*

11. *Wet sand and seal the surface if necessary.*

**Images for illustrative purposes only. Shape of finished examples may differ depending on the contents of the pack purchased.*

How To Make Picture Patterns

This technique works best on wide shallow moulds like trays and coasters.

***IMPORTANT:** Before you begin, plan the design you want to create so you know how many colours are needed. The working time for acrylic resin is 5 minutes, this means it will start to harden within 5 minutes. Planning is important to reduce waste of the materials.*

1. *Measure a small amount of base powder. Recommended amount for this process is between 5-10g at a time.*
   Then measure out the casting liquid as per the ratio of 2.5 base powder : 1 casting liquid.
2. *Pour the liquid into the base powder. Stir until free from lumps.*
3. *Add pigment of your choice. Stir until well combined.*
4. *Paint the mixture onto the silicone mould as per your design and set aside to dry.*
5. *Repeat steps 1 - 4 to make as many colours as the design requires.*

6. *Measure out 2.5 parts base powder : 1 part casting liquid.*
   Coaster mould = 95g base powder : 38ml casting liquid
   Tray mould = 190g base powder : 76ml casting liquid
7. *Pour the liquid into the powder and mix until free from lumps. Then pour the mixture into the mould over the painted pattern.*

8. *Tap the sides of the mould to release any trapped air bubbles.*
9. *Set aside to dry for 2-3 hours. Demould the piece and let cure for a further 24 hours.*
10. *Wet sand and seal the surface if necessary.*

**Images for illustrative purposes only. Shape of finished examples may differ depending on the pack purchased.*

Frequently Asked Questions

Is acrylic resin food safe?
Although acrylic resin is non-toxic, it is not food safe.

Is acrylic resin dishwasher or microwave safe?
No, acrylic resin is not dishwasher or microwave safe.

Is acrylic resin waterproof?
Cured acrylic resin is water resistant, however unsealed pieces should not come into contact with large amounts of water or be left in standing water. Seal the entire surface using a water-based, waterproof sealer if the piece is likely to come into contact with water. A waterproof sealer must be applied before potting a plant. It is also highly recommended on coasters, to protect it from spills and for pieces that are intended for use in a bathroom. For best results, wipe water from the surface using a cloth.

Is acrylic resin heat-resistant?
Acrylic resin is low heat resistant but not heat proof. It can withstand warm temperatures such as a coffee mug, however it should not come into contact with hot items such as hot pots and pans. It is ok for the cured piece to come into contact with direct sunlight and be left in warm environments.

Is acrylic resin chip-resistant?
Acrylic resin is strong and durable, but it is not as strong as granite or quartz. It is durable enough to use for occasional tabletops, trays, jewellery and other decor items. It is not recommended to be used as flooring, chopping boards or kitchen worktops.

Can acrylic resin be painted?
Yes, acrylic resin makes a great painting surface. The natural colour is opaque off-white, making it an ideal base for pigments. Pigment can be mixed into the acrylic resin mixture or painted/drawn onto the surface after curing and sanding and before sealing.

Can acrylic resin be used in combination with epoxy resin?
Yes. An interesting effect can be achieved when creating a multi-tone piece with acrylic resin and epoxy resin. However, do not mix the mediums together. Mix and pour one medium first and allow it to dry before pouring the second medium.

Acrylic Resin Ideas

Pigment painted directly onto the acrylic resin surface after curing, before sealing.

Tip: Combining different effects.

1. *Try using polymer clay or air-dry clay to create the letter shape.*
2. *Stick the clay firmly into the mould making sure there are no gaps where the acrylic resin can seep in underneath. The letter shape needs to be slightly taller than the mould, so it doesn't get covered by the acrylic resin when poured.*
3. *Pour the acrylic resin mixture into the mould around the clay shape.*
4. *Set aside to dry for approx. 3 hours before removing the clay.*
5. *Pour a freshly prepared batch of acrylic resin into the space where the clay was, to fill the shape.*
6. *Set aside to dry.*