



RESIN TROUBLESHOOTING GUIDE

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You thought long and hard about what you wanted to do with resin. You chose a project, mixed the resin, and cast it. Now, you are finding out the results are not what you were expecting. When things don't work out with resin, there can be many reasons for this. Here are a few of the most commonly encountered resin problems and some possible solutions:

Problem: Resin not cured



1. Resin was not mixed in the correct ratio of resin to hardener. Not all resins mix the same way! Reread the instructions and be sure you clearly understand the amount of resin and hardener (also called catalyst) to mix together.



Pro tip: Measure both parts separately and accurately in graduated mixing cups. It's easier to compensate for over pouring one of the two components when you can clearly see the levels in cups when they are next to each other instead of two layers in the same cup.

2. Resin and hardener were not mixed thoroughly. While mixing, it is essential to scrape the sides of the mixing cups and stirring utensil during the process to make sure the mixture is well blended.



Pro tip: I mix resin and hardener together for a total of 10% of the pot time and scrape the cup and stirring utensil a minimum of three times during the process.

3. Non compatible resin and hardener used together. You cannot use one company's resin with another company's hardener. Be sure to use a hardener that was designed for the resin you are using.



Pro tip: Sometimes when I run out of one component, there is a little left of the other component. In this case, I will start with a new kit and not use the leftover parts from the old kit.

4. Hardener not added to the resin. In order for the resin to cure, a hardener must be added. Note: This is not the case with UV resin, which requires UV light to cure.

5. Not enough time given for curing. All resins have different cure times, from minutes, to hours, to days. Check to be sure you are giving the resin enough time to cure.

6. Resin components are not warm enough before mixing them together. Warm the resin in a hot water bath in 5 minute increments if the resin bottles feel cool to the touch. Be sure to dry your bottles thoroughly before opening them as you do not want water to contaminate your resin. That may keep it from curing!

7. Room temperature where you are casting resin is not warm enough. Ideally, resin needs to be mixed and cast in a room that is 70 to 75 degrees Fahrenheit. While mixing the two components together will produce heat, the mixture will cool off quickly if room temperature is too cold.



Pro tip: If warming an entire room is too difficult or costly, make a resin 'hot box' like shown in our article on [cold weather resin casting tips](#).

8. Resin or hardener is past its shelf life. Depending on the resin you are using, you have approximately 3 to 12 months to use it before it may not cure once mixed.



Pro tip: If your epoxy resin is older than this, don't throw it away! If it has been properly stored, it is still likely to cure, although it may start to discolor. It's a great option for projects where the resin is going to be colored anyway. [See our results of casting yellow resin.](#)

9. Resin is poured in a thin layer. Thin castings will take longer to cure than thicker castings due to the heat production of the reaction being spread thin over the casting area.

10. Too much moisture in the resin casting. Use colorants designed for resin and use resin kits within their specified shelf life times. Also be sure all mixing containers and utensils are dry.



Pro tip: We have a large selection of [resin colorants](#) in our store that are designed for use with resin.

11. Not enough resin and hardener mixed together. All resins have a minimum amount that must be mixed together in order for enough heat to be generated for curing to occur. This varies from resin to resin, so check with the manufacturer for their recommendations.

Problem: Pot life of the resin is shorter than expected



1. Improper resin to hardener ratio. Do not use more hardener or less resin than recommended. Having more catalyst than what is needed will cause the reaction to heat up quickly and cure faster than expected.

2. Your resin and/or hardener are too warm. When these are too warm, pot time is shortened, sometimes significantly.

3. The amount of resin and hardener mixed at one time is too much. The reaction is mass dependent — the more of each item, the more heat that is produced, the faster the resin heats up, and the faster curing takes place.

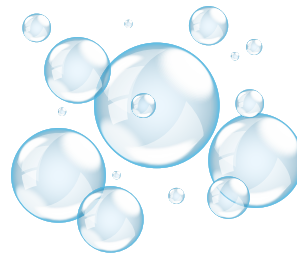
4. Something was added to the resin and hardener mixture causing it to heat up too quickly. Some solvents, when added to resin, can speed up the chemical reaction reducing the mixture's pot time.

Problem: Pot life of the resin is longer than expected



- 1. Improper resin to hardener ratio.** Make sure to use the exact amount of hardener recommended in order to start the chemical reaction. Too little hardener used will not generate the heat required to cause curing.
- 2. The resin, hardener, and/or the room is too cold.** Be sure the components are warm and the room temperature is between 70 and 75 degrees Fahrenheit.
- 3. The volume of resin and hardener being mixed is too small.** Resins require a certain amount of each component to be mixed in order for the curing reaction to occur. Be sure to mix the minimum recommended amount by the manufacturer.

Problem: Cured resin has bubbles in it



- 1. Be careful when mixing the resin.** The best way to make sure bubbles aren't in your final casting is to avoid creating them when mixing the resin. Carefully and deliberately stir the resin and hardener when mixing, but do not whisk it.



Pro tip: Not only does warming your resin and hardener ensure curing, but it also reduces the number of bubbles!

- 2. If solid items have been added to the resin, the difference between the surface tension of the resin and surface tension of the inclusion can cause bubbles.**



Pro tip: Dip items in your cup of mixed resin before including them in your bezel, casting, etc. This will help to break the surface tension and introduce fewer bubbles into your resin.

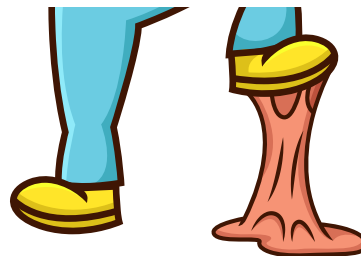
- 3. Remove bubbles before allowing the casting to cure.** Draw them out with a toothpick or use a [heat gun](#) to get bubbles to the surface of the mixed resin.
- 4. You have included items in the resin casting that have 'brought' bubbles with them.** Anything porous, like wood or bone, will trap air which can release later into your resin casting.
- 5. The temperature difference between the resin and what you were casting the resin into was too much.** Gently warm the casting mold, bezel, surface, etc. with a heat gun before pouring the resin.



Pro tip: If possible, place your items into a warm, 150 degree Fahrenheit oven (designated for crafting purposes only) before casting to evenly heat the surface.

Want more tips on how to get bubbles out of resin? Be sure to watch our video with [tricks and tips for getting bubbles out of resin](#).

Problem: Resin is cured, but surface is tacky



- 1. Resin and hardener were not mixed thoroughly enough.** Be sure to mix completely, scraping the sides of the container and stirring utensil while mixing.



Pro tip: I typically find that this happens to most people when they scrape the last bit of resin out of the cup. If you have not done a good job mixing, this resin will stay sticky whereas the resin you first cast from your cup generally cures as expected.

- 2. When using polyester resin, this is a normal occurrence to the surface exposed to air during curing.** Either seal the surface with a [sealer spray](#) or sand off the tacky surface.
- 3. Excess humidity can do this sometimes.** Run a room dehumidifier during the next casting.

Problem: Resin embeddings have 'wet stains'



1. Seal items with a clear [drying glue](#) or [acrylic spray](#) before including them in resin.



Pro tip: If you are unsure whether or not you need to seal something, ask yourself whether or not getting it wet will change the appearance. If the answer is yes, then you need to seal it.

Problem: Resin and/or hardener has yellowed



1. Resin kit is past its expiration date.

2. **Resin kit has been improperly stored.** Resin and hardener need to be stored in a cool, dry place, away from sunlight and temperature swings.



Pro tip: I like to store resin in a plastic bag, in a box, in a dark closet, and indoors.

3. **Resin components have been exposed to air for too long.** Purchase only enough resin and hardener that you can comfortably use by half of the kit's expiration time (i.e. If a resin and hardener kit has a 12 month shelf life, only purchase enough that you can use within 6 months).

Problem: Resin has cured cloudy



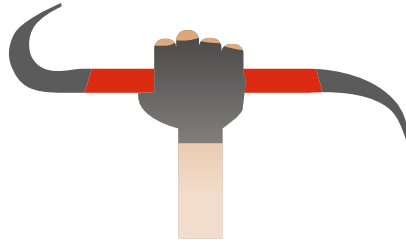
1. Resin kit has been contaminated with water.



Pro tip: Never store resin in a cold place. When it warms up again, condensation can form on the inside of the lid which will taint your resin and hardener.

2. Resin components are cold. Warm the bottles before using.

Problem: Resin sticks to the mold



1. Resin has not cured properly. If your resin is gooey or syrupy, you are going to have to throw the mold away and start over.

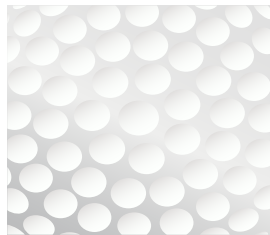
2. Resin was cast in a mold not intended for resin use. Molds designed for plaster, candy, and soap are not useable for resin.



Pro tip: If this happens to you, place the mold in a freezer for 10 minutes. Remove and slap onto a hard surface. With any luck, the castings will pop out.

3. Resin poured into an incompatible mold. Polyurethane resins sometimes do not work well with silicone molds. You must use a mold release in this situation.

Problem: Resin has cured with a dimpled surface



1. A non self-leveling resin was used. This typically happens with casting resins. Use a doming resin next time if a flat, even surface is essential.

2. A colorant or additive added to resin caused it to not maintain a smooth surface. If the resin has cured, wipe the surface with a baby wipe and recoat with a doming resin without any additives.

3. Resin was manipulated with after the pot time. Once the resin starts to gel, you should discontinue working with it.

Having a problem you don't see here? We have lots of articles on [troubleshooting tips](#) that can help you.

You can also post your question in the resin [troubleshooting section](#) of our [resin forum](#) where a community of resin crafters is ready to help you.

I hope you look forward to receiving more useful tips, advice and inspiration in your inbox to help you be a better resin crafter.

Happy Crafting!
Katherine

