

Hot Process Soapmaking Step by step

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This method is the crock pot version of hot process soap making.

Ok, before you start have your chosen recipe ready, obtain all the necessary ingredients and line your soap mold.

Measure the Base Ingredients

When you're first learning how to make soap, it's best to keep things simple. Limit yourself to just a couple of additives to begin with. As you become more familiar with making hot process soap, you will be more confident about adding in other techniques.

All the steps in these soap making instructions are important but with measuring it is crucial that you pay particular attention to measuring accurately. Make sure you are familiar with your weight scale before you start.

Inaccurate measurements can produce lye or oil heavy hot process soaps which you will either have to re-work or possibly have to dispose. Learning how to make soap is a lot more fun if you don't have to throw it out. Make sure you get a good scale it's the best investment you can make.

1. Measure additives and essential oils.

- Measure out any botanicals or colorant you will be using and place them in a container.
- Set aside your essential oils, extracts and/or exfoliants that you are using.

2. Prepare the lye solution.

- Measure out your water and place it in the lye mixing container. Use heat proof stainless steel or Pyrex. I use an old coffee carafe.

(Note: do not use chlorinated water. Either use distilled or natural non chlorinated water. I have non chlorinated well water at my place).

- Before using sodium hydroxide, put on your safety equipment; goggles, gloves and long sleeve clothing.
- Measure out the lye and pour it slowly into the container stirring as you pour. Keep stirring until the lye crystals are completely dissolved.

- You will notice fumes and HEAT being produced while you are mixing the lye solution. I take my lye mixing outside or I place it under my stove vent fan. Avoid breathing in the fumes.

Important Safety note: Always add the sodium hydroxide (lye) to the water. NOT the water to the sodium hydroxide. A violent reaction occurs and you could sustain chemical burns if you do not observe this precaution.

3. Measure base oils.

- Starting with the solid oils, measure each and place it into your crock pot that is set on low. As you continue to measure, the solid oils will melt.
- Or you can use your microwave to melt your solid oils.
- *If you are going to use the oven method, simply melt the oils on the stove.*



- Once the solid oils have melted, add the liquid oils.



Mix the Oils and Lye Solution

I make sure my oils and lye solution are below 120° F (49° C)

There's no need to have temperatures exact in your oils with hot process soap making. I just make sure the 2 solutions are not too hot. If they are over 120 it can affect the speed of trace, and possibly burn you if it splashes

1. Combine lye solution and oil mixture. Slowly pour a thin stream of the lye solution into the pot of oils while using the whisk or stick blender to stir the mixture.



- Maintain a steady, strong stirring motion. Not so fast as to splash but fast enough to keep the mixture in constant motion. The idea is to get the oil, lye and water molecules to meet and combine to make soap. If you're using a stick blender, pulse for a few seconds then stir for a few seconds. Repeat.
- Make sure to stir thoroughly all areas of the pot. The mixture will turn creamy and opaque and then will begin to thicken.

2. Stir mixture until it begins to trace.



- Keep stirring until the mixture reaches a thick trace.



Cook the Soap

Once the soap reaches a full trace, it's time to cook the mixture and force the gel.

(If you want to use the oven instead of the crock-pot, heat the oven to it's lowest setting. No higher than 170 degrees Fahrenheit / 76 degrees Celsius. Place the soap in an oven proof container that has lots of extra room and follow the same instructions as below.)

1. The Cook.

- Put the lid on the crock pot and leave it to cook on low for about an hour



- The soap will heat up and start to bubble around the edges of the crock pot.



- Keep an eye on the soap and stir it down gently only if it starts to bubble over.



- The mix will begin to take on a clear Vaseline like look.



- Once the entire mix has this look, you can test it to see if it is done using ph strips or some soap makers do a zap test.

- **Wait, what is a zap test?** A zap test is an old-fashioned way to check a soap mixture for the presence of lye by touching it to your tongue. If it feels zappy or sharp, like touching a battery to your tongue, it's not done yet. While I have done a zap test, *I don't recommend it at all*. Not only does soap taste bad, but it is dangerous and can give you a chemical burn or thermal burn if the soap has too much lye present or is too hot. I much prefer to go by temperature and look rather than risking my tongue!. If you do want to absolutely test your soap you can use some ph strips.

Testing the pH of Soap

With hot process, the soap will gradually take on a waxy appearance while it's over the heat. After a while, stir the soap and it should look like waxy mashed potatoes. Using a similar process as above, make a paste with the waxy soap and a bit of distilled water and test the pH. Again, it should register between pH 7-10 to be safe. At this point, the soap is safe to touch and use.

Sodium hydroxide has a pH of 14, and lye has a pH of 13. Again, it is extremely alkaline. Thus, when testing the pH of soap, you will see a gradual move towards a more neutral pH of 7. If your soap is still too caustic to touch, the pH will be between 10 and 14.



Additives and Pouring Soap

Now is the time to add in any botanical bits and scent to your hot process soap mixture.

1. Incorporating additives.

- Mix in any botanical bits and extracts.
- If you want to make a swirl of colour or make coloured layers, divide off some soap and colour it now.
- Once the soap has cooled a bit, you can add the essential oils. Make sure to cool the soap to a temperature below the essential oils flash point. *Flash point is the temperature that the essential oil will ignite and vaporize. If it is added at too high a temperature, your soap may not smell like you planned.*
- You will have to work fast while mixing since the soap will cool quickly. Make sure that the additives are not cold.

2. Molding the soap.

- Hot process soap is a lot like re-batching when it comes to molding. It doesn't pour. It is a thick gooey mass (like mashed potatoes) that must be scooped into the mold quickly. If you have a wood or hard plastic mold you will need to line it to be able to get the soap out. Use plastic wrap, parchment paper, some use butcher brown paper.
- Make sure to gently tap the mold on the counter to get out any air pockets. Not too hard or some of the soap may pop out and burn you.

Cutting and Curing

Now you have to just leave it alone! It can take 24 hours sometimes more to cool down and harden enough to remove from the mold.

1. Unmolding.

- Remove the soap from the mold and take off the butchers paper, or plastic wrap. If you used unlined individual molds, you may find it easier to remove the soap by placing it in the freezer for awhile.

2. Cutting.

- You can cut the soap into bars right away. To cut you can use a knife or a corrugated soap cutter available at soap suppliers

3. Curing.

- As discussed at the beginning, once you have cut the soap into bars, they can either be used immediately or be cured for a few weeks. The longer the cure, the harder and milder the soap.
- Place the soaps in a single layer on an empty beer flat or tray lined with paper towel and store in a dry, cool, dark location for maximum longevity.

4. You're Done!

- Now that you have learned how to make hot process soap, it's time to plan the next batch!!

Some examples of coloring hot process bars of soap

