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MASTERING THE POUR: A CONTAINER CANDLE MAKING GUIDE (DEMO)

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CANDLE MAKING BOOKLET

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CANDLE MAKING BOOKLET

CHAPTER 1: INTRODUCTION

Introduction

Hello, I am Abed, and I am the one behind this small booklet.

Just a quick intro about myself, I've been making container candles with my wife for over two years now. It started as a hobby but is now a full-fledged business. The idea to make candles randomly popped up, and we spent around 9 months of testing before we actually launched our brand.

Knowing that you can rest assured that all the information provided in this booklet, is from a candle business owner and from someone who actively makes candles, tests candles, and even sells candles for a living.

In this booklet, we will go over

- Common Candle making terminology.
- The different types of waxes.
- The different types of wicks and how to select the most optimal one.
- Fragrance oils & Candle math.
- Making a container candle from coconut and soy wax
- Finally, how to troubleshoot common candle problems.
- My personal tips and tricks that I learned throughout the years.

Anyway, this wraps up the introduction, let's get started 🙌

CANDLE MAKING BOOKLET

CHAPTER 1: INTRODUCTION

Supplies Needed

To make a candle, you will need supplies:

- To begin with, a Pitcher or any steel container that has a pout is required.
- You will need a Thermometer.
- A Pipette.
- A Candle Jar.
- Wick.
- Coconut Wax, Soy Wax, or a blend of both.
- Fragrance Oil / Essential Oil.
- Stirring tool / Spatula.
- Wick centering tool (You can use wooden sticks).
- Digital Scale.
- Double-sided stickers.



Steel Pitcher



Thermometer



Pipette



Glass Jar



Mixing Tool



Candle Wicks



Candle Wax



Fragrance



Double-Sided Stickers



Digital Scale



Wick Holders



CANDLE MAKING BOOKLET

CHAPTER 1: INTRODUCTION

Some other items found in your household that you will need:

- Stovetop.
- A pot to fill with water.

This does feel like a lot, but it is very important that you have all those items, to be able to make a candle successfully. You can also make use of our ready-made workshop kit that includes everything you will need to tag along with me. However, due to regulations, we can only ship this kit, within the UAE.

Don't worry though, because, at the end of this booklet, you will find links to where you can get all those items wherever you are in the world.

That's it for this lesson. Next, we will be going over the terms we use in candle making, and it is important to know those terms as we will be using them a lot throughout this booklet.

Terminology

Just like anything we do, there are terminologies that come with candle making, and it is important that you understand most of them.

The terms are:

- FO = Fragrance Oil
- FL = Fragrance Load (The amount of fragrance that you will use, usually referred to in percentage)
- Cold Throw = how strong a candle smells when you pick it up off of a store shelf
- How Throw = how strong a candle smells while it is burning
- Melt Pool = When the wax on the surface of your candle melts from edge to edge
- Curing = The time needed for the candle to rest after being made.
- Flashpoint = The maximum temperature a fragrance oil can handle being evaporated
- Sinkhole = A hole that happens in your candle, usually around the wick, due to wrong pouring temperature
- Frosting = A white layer that forms on top of your candle, and is natural to happen with vegetable waxes.
- Notes = Fragrance notes, usually referred to as top, middle and base notes.

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CHAPTER 1: INTRODUCTION

- Wet Spots = Small spots that look wet, and that happen as a result of the wax contracting and separating from the jar causing an aesthetic problem. Usually most visible in transparent jars, and this is normal in vegetable waxes, especially soy wax.
- Mushrooming = When a wick turns into itself and makes a mushroom shape on top. This happens due to an excess supply of liquid wax to the wick.
- Sweating = Small drops of fragrance oil that seep outside the wax, and stay on top of the candle, even after cooling.
- Over & Under-wicked = When your wick size is over wicked, it means that the size is too big, and under wicked means that the size is too small



Frosting



Wet Spots



Mushrooming



Sink Hole



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CHAPTER 2: CANDLE WAXES

Choosing the right wax

When it comes to candle making, the three most important components are your:

- Wax
- Wicks.
- Fragrance oil

In this booklet, we will cover all three, and more. Starting off with wax.

So, when it comes to wax, we have so many types like:

- Soy Wax
- Coconut Wax
- Paraffin Wax
- Beeswax.
- Rapeseed Wax
- Gel Wax

They are all used in the industry. In this booklet, we will only be covering Soy and Coconut wax.

It is important to choose the right wax for the candle you want to use because this will affect the quality of the candle. Some waxes can only be used for Container candles, whereas others can be used for pillar and taper candles. We will talk about this in detail, a bit further in the class.

So the secret to every good candle is the proper usage of wax as each one has its own molecular structure, melting point, heating point, and so on and so forth. Some are softer than others, and some are easier to work with than others.

In the next two sections, we will be going over the different waxes that we will cover, now things are getting exciting.

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CHAPTER 2: CANDLE WAXES

Soy Wax

The first wax on our list would be Soy wax. This is a wax that's made from soybeans, and this is what makes it sustainable. It is one of the most common waxes used among candle makers because of its affordable price, variety, ease of use, and availability.

The issue with soy wax is that it has so many natural imperfections like frosting, crystallization, and wet spots. If you're not sure what I mean by those, then you can check the Terminology section in this booklet. These problems are normal though, and we will cover how to fix every one of them later in the course.

It is also harder to get a strong scent throw when using 100% soy wax due to the higher melting point of the wax. This is why I recommend getting a coconut and soy blend.

Soy wax can be used for container, and pillar candles due to its strong structure, and higher melting point. Just make sure you are getting the proper type of soy wax for your application. Container soy wax is usually softer than pillar soy wax.

If you ordered a 100% soy wax, you will not be able to use it for pillar candles, which is not applicable to pillar candles.

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Coconut Wax

Coconut wax is another sustainable type of wax, but it is not as common to find in the market as soy wax. It is made by processing coconut oil and turning it into the wax that we use for our candles.

The good thing about coconut wax is that it has a strong scent throw compared to other waxes. This is because of its low melting point, and the ability for the fragrance to evaporate faster. You will also get perfect creamy tops on your candles when using coconut wax, and most likely on your first pour.

This doesn't come without consequences though. Coconut wax has a low melting point which means that it has a very low burn time compared to soy wax. When testing, we saw that coconut wax alone has 10 hours less burn time, compared to 100% soy wax in a regular 8-ounce candle jar.



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CHAPTER 2: CANDLE WAXES

Coconut wax can only be used in container candles because of how soft it is. Using it in a pillar or mold is not feasible unless it is blended with other types of waxes like soy, beeswax, or other additives like stearic acid, which helps in hardening the wax.

Congratulations, now you know about coconut and soy wax, but it begs the question. Should you buy them separately and blend both, or get preblended? We will be answering this question in the next section.

Blending waxes, or getting preblended

Wax blending is possible when making candles, and this is usually done if you want to have something unique, and want to obtain specific results. Nowadays though, there are more than enough waxes out there in the market, that you can get started with, without worrying about blending any wax.

Now if you are completely new to all this, I recommend you buy a preblended wax, like the MI2 which is a blend of coconut, and soy wax. This makes this wax vegan and free of toxins.

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If you want to buy them separately, you can go with the Eco Soy CB Advanced Container blend, which is a blend of coconut and soy wax. When it comes to the ratio of coconut to soy wax, you can change it and change based on your needs. More soy would result in a longer burn time due to a higher melting point, and more coconut would result in a stronger scent throw with a softer top.

For this course, we will not be blending waxes though, and will be using the Superior MI2 wax. So if you want to follow along step by step, and you don't own the same type of wax, I want you to check the following things from your supplier's website, and keep note of them:

- What's the maximum fragrance load the wax can handle. It's usually between 6 and 12% but this varies from one wax to another.
- The heating range of the wax.
- The pouring range of the wax.

When we get to the part where we make the candle, and you get any of those numbers wrong, you will end up with a candle that has all sorts of deformities. I will be reminding you to check again, once we get to the making part.



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CHAPTER 2: CANDLE WAXES

If you happen to run into any issues though, we do have a section for candle troubleshooting later in the booklet.

This wraps up chapter 2, next we will talk about wicks.

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CANDLE MAKING BOOKLET

CHAPTER 3: WICKS

More than a Flame

It is safe to say that the wick is the soul of the candle. Its function is to melt the wax, and pull that liquid form upwards, to sustain the flame. This heat is what allows the wax to vaporize, and it is this evaporation that causes the fragrance to produce a scent.

A wrong wick size in a candle can cause so many problems.

For example, a large wick makes your candle very hot to the point where the fragrance doesn't have the chance to evaporate into the air due to the excessive heat.

A small wick can create a tunnel, and you end up with a bad-looking candle that has a lot of leftover wax hanging on the edges of the jar.

This is why it is important to take your time when selecting a wick and do all the testing needed before attempting to sell your candle.

Wick Types & Sizes

When talking about wicks, we will only be using cotton wicks, so this is what we will talk about. There are other things like hemp wicks, zinc core wicks, and lead wicks, but we will not bother ourselves with those, just know that they exist.

Cotton wicks are categorized into different series and different sizes. They are called like:

- LX 8
- ECO 12
- CD 16 (Stabilo) and so on.

First, you have the series, followed by the size. This sequence will help you identify which wick to pick based on your wax type, fragrance oil, jar diameter, and any additives like dyes, stearic acid, or vybar. If you have our workshop kit, then you will find CD 18 wicks, along with a 3-inch diameter jar.

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CANDLE MAKING BOOKLET

CHAPTER 3: WICKS

If you don't have the kit though, don't worry because we will talk about how you can select the perfect wick size for your jars, later in the course. Just remember that anything different that you add to your candle, could impact the wick size that is needed. If you found the perfect wick size for a 3-inch diameter jar with Jasmine fragrance oil, doesn't mean that the same wick will work on a 3-inch diameter jar with Sandalwood fragrance oil, you could need a wick or two down, or up.

Some other things to consider about wicks are the bottom tab that comes with it, and whether it is pre-waxed or not. You see, remember when we said that the wick pulls the liquid wax from the bottom to be able to sustain the flame? The additional wax that is added to the wicks serves as additional fuel that stabilizes the flame and improves burning performance.

Don't wax any wick you buy though, as most of them are pre-waxed with vegetable-based waxes, like the Eco series. If you want to wax your wicks yourself, this is a thing that so many candle makers prefer to do, but personally, I just get pre-waxed, and pre-tabbed wicks.

Wax Melting Point & Wick

The melting point of a wax is the temperature at which it changes from a solid to a liquid state. This is a critical factor in determining the outcome of your candle's burn, and this includes appearance, durability, burn quality, and the appropriate wick selection.

Waxes with lower melting points, melt at lower temperatures. This makes them easier to handle and allows the fragrance oils and additives to be added more efficiently. These waxes tend to make candles with smooth, creamy surfaces that are visually pleasing and attractive.

On the other hand, waxes with higher melting points, require higher temperatures. This results in a harder, more robust wax. Ideal for candles that need to maintain their shape, like pillar candles.

The choice of a wick is directly influenced by the melting point of the wax used. Waxes with lower melting points melt more easily and require smaller wicks. This ensures an even burn and prevents the flame from being too high, and the candle from burning too quickly. The same logic applies to harder waxes.

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CHAPTER 3: WICKS

Additionally, the melting point affects the fragrance's dispersion from the candle. As we mentioned before, waxes with lower melting point have a stronger scent throw compared to waxes with higher melting points.

So this is why we need to understand very well, which wick we need to use for our candle. How? Well, we will answer this in the next lesson.

How to Select the right wick size

I should start this lesson by telling you that the best way to find out which is the perfect wick size for your candle, is by testing. It will involve a lot of testing initially but will become easier later.

How do you test for wick size though? Well, the first thing that you have to do is get the diameter size of your jar. This is done easily by measuring the distance from one edge of the jar to the other.

Anything that is bigger than 4 inches will require three wicks.

Anything between 3 and 4 inches will require 2 wicks.

Anything 2 inches and below will only need one wick.

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Once you've found your jar diameter, pick a wick appropriate for that size, and then start your first test. If your candle gets a full melt pool after 3 to 4 hours, then that's great. If it doesn't, then you need to check for a few things.

If the candle tunneled, then you need to go 1 to 2 sizes up, depending on the size of the tunnel.

If your candle burns too fast or gets too hot to hold even though it's your first or second burn, then you need to wick down 1 or 2 wick sizes.

If your wick is turning off on its own, then it is clogged and it doesn't have enough heat to melt the wax fast enough for it to go up, and sustain that flame. For this, reconsider any additives you have, or wick up 1 or 2 sizes.

Don't forget to always trim your wick to a quarter of an inch before attempting to make burn tests. A long wick can burn your candle faster than expected and even produce more soot due to the flickering and drafts that can hit the flame.



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CHAPTER 3: WICKS

This does feel like a lot, but you have to go through this process because every single ingredient in your candle, plays a role in the wick selection, and there is no right answer that is set in stone.

As I said though, it does become easier, the more you practice. One place to start is by checking out the wick guide on CandleScience's website, this is also linked in the helpful resources section of this booklet.

This wraps up the third chapter of the course, and in the next one, we will talk about fragrance oils.

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CHAPTER 4: FRAGRANCE OILS

What are Fragrance Oils?

Fragrance oils are concentrated, synthetic blends of aromatic compounds designed to create specific scents. They offer a variety of options, often replicating natural scents or creating entirely new ones.

Some fragrance oils are made with 100% synthetic compounds, and others are a blend of natural essential oils, and some synthetic ones. What you need to look out for when buying your fragrance oils, is ones that are free of any toxins like phthalates, and parabens. This allows you to label your candle as free of toxins, given you are using a vegetable-based wax.

There is another type of oil which is, essential oils, and this is a natural alternative to fragrance oil. However, this one is more expensive, is harder to work with, is less available in the market, has less options, and needs advanced techniques to be able to pull off a candle with a strong scent throw. If you ever wish to start a wellness brand, the essential oil route is what you want to go with, but if you want to make beautifully scented candles, then synthetic fragrance oils are good enough and are harmless.

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Fragrance oils are generally more affordable than essential oils and tend to have a stronger, more consistent scent throw. The one downside you are getting candle with fragrance oils is that you are getting the oil, as these ones contain alcohol inside them, and you know very well how alcohol reacts with fire.

All fragrance suppliers that provide oils free of toxins, are of premium quality and are safe to use in candles, are linked in the helpful resources.

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CHAPTER 4: FRAGRANCE OILS

Oils and Candles

When it comes to candle making, it is good to understand the science behind how the oils and the wax react together. You see when working with candles, temperatures are extremely sensitive, and you have to be accurate about when you pour your fragrance inside the hot wax.

It is almost always the case that you have to pour your fragrance oils between 165 and 185 Fahrenheit. This is because, if your wax isn't hot enough, the oils will have a hard time combining with the wax. Just make sure that you are pouring your oils under their flash point, and as we mentioned in the terminology lesson, flash point is the maximum temperature an oil can handle, before it burns inside the wax.

Anyway, after pouring your oils at the right temperature, and mixing for at least 2 minutes, the oil molecules will mix with the melted wax, and once the wax solidifies, these oil molecules will become trapped inside the solid wax, but they won't blend with it. So it's not like water and sugar, but rather like water and oil.

Now once your candle starts burning, there are some things that can happen where fragrance is concerned. You can either have a clean smooth surface, or experience soot. Soot is when droplets of oil seep outside the wax. This is a common issue, and we will talk about how to solve it later in the course.

So, it's now time to burn your candle and experience the pleasant hot throw that you were patiently waiting for. The way this "hot throw" happens, is by evaporation. Once the wax reaches a full melt pool, the oil molecules start evaporating and this is what causes this pleasant smell to come out of your candle.

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CHAPTER 4: FRAGRANCE OILS

Fragrance Oil Measurement

Fragrance oils are typically added to candle wax in a specific percentage. There are two main methods for measuring fragrance oil, and they are, percentage by weight, and by volume.

Percentage by Weight is the most accurate method as it accounts for the varying densities of different fragrance oils. To use this method, simply weigh your wax and then add the desired percentage of fragrance oil by weight. For example, if your recipe calls for 10% fragrance oil and you have 1,000 grams of melted wax, you would add $0.1 \times 1000 \text{ grams} = 100 \text{ grams}$ of fragrance oil.

$$FO = \text{Wax Weight} \times FL\%$$

Percentage by Volume is another method, but it is less precise, and for this reason, will not be going over it, just know that it is something that you can also do. I wouldn't recommend that though as different oils have different densities, and this could cause some inconsistencies.

So when the time comes, **Get The Full** make our candle, we will be weighing our fragrance by weight. Anyway, this concludes the chapter on **Version To See More** fragrance oils. **Version To See More** alternatives that can go inside your candle.



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CHAPTER 5: CANDLE ADDITIVES

Intro to Additives

In this chapter, we will be talking a little bit about the different additives that you can have in your candle. These additives will ultimately serve to improve your candle's performance.

When I say performance, I mean color retention, fragrance retention, increased burn time, and overall candle presentation.

One thing to note is that, in most cases, you will not need to add any additives to your candles. You should also be careful when using them, as putting more than required, can clog your wick, and ultimately ruin your candle.

So, this is a quick introduction, in the next lesson, we will dive deep into the common additives that can be used, and what purpose each one of them serves.

Different Additives, and Their Uses

The first item on our list will probably be one of the most commonly used additives and is most likely already available in your wax. Stearic acid is a common additive that is used to increase the burn time. It is also referred to as a hardener, and it helps to retain the color of your candle, and give it a more creamy finish.

UV Inhibitor is another additive that is used to help the candle keep its color by protecting it from UV light.

This is useful for candlemakers who color their candles with dye, whether it was chips or liquids. It is also very useful if you are selling your candles in markets, and where there is a lot of sun exposure. Just remember that this does not protect the color of your candle for a lifetime, it just helps in increasing the time that this color is retained.

Speaking of colors, let us talk about dyes. An additive that is common between candlemakers, and as I said usually comes in either chips or liquid form. The form doesn't matter, but rather the quantity because adding a lot of dye to your wax can also lead to clogging your wick.

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CHAPTER 5: CANDLE ADDITIVES

Other forms of additives don't have to blend directly with your wax, but candlemakers also use things like stones and dried flowers to add an aesthetic touch to the final product. I'm not someone who would do that though, and I don't recommend it because just a drop of water released from those dried flowers, can potentially be a big hazard, let alone the fact that those dried flowers can catch on fire. If you prefer to use such cosmetic items on your candles, do it cautiously, and try to stay as far away from your wick as possible.

When adding anything extra to your wax, don't forget to always follow what your supplier recommends, and do not go overboard. Next up, we will finally stop talking about theory, and actually make a candle together.

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CHAPTER 6: MAKING A CANDLE

Superior M12 Wax Method (ONLY IF YOU HAVE THIS EXACT WAX OR OUR KIT)

- Heating Temp: 75 degrees Celcius / 167 degrees Fahrenheit
- Fragrance Pouring Temp: 70 degrees Celcius / 168 degrees Fahrenheit
- Pouring in jar temp: 60 degrees Celcius / 140 degrees Fahrenheit
- Curing Time: 14-21 Days
- Wax Needed (8-ounce jar from the kit): 200 grams
- Fragrance Load: 7% / 14 grams
- Wick Size: CD 18 (Single Wick)

Making your first candle

Now it's finally time to make our candle, so let's dive straight into it without wasting any time. If you have the workshop kit, you can just follow the measurements mentioned above.

- Fill the jar with water, and measure it.
- Multiply that weight by 0.8, and this is how much wax we will need.
- Remove the water, and make sure there is not even 1 drop of water.
- Place this amount of wax in a pitcher, and let it sit on the side.
- In the meantime, we will clean our jar. Place a thermometer inside the pot with the wax, and keep an eye on the temperature because this is the most important step in candle making. If you get the temperature wrong, you can potentially ruin your candle in so many ways.
- Let the wax heat up based on your supplier's recommendations.
- In the meantime, while the wax is melting, we will clean and wick our jar.
- Place a double-sided sticker on the bottom of your wick, and then place the wick as close to the center of the jar as possible, and then place a wick centering tool to properly secure the wick.
- We will measure 7% fragrance oil, and we do that by multiplying the amount of wax that we use by 7%.
- After the wax reaches the proper heating point, we will take it off, and let it cool down for a bit before adding the fragrance.
- Again, by following your supplier's guidelines for the wax, we pour the fragrance oil at the right temperature. Make sure to check your oil flash point, and always pour below that.

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CHAPTER 6: MAKING A CANDLE

- Stir gently for two minutes straight.
- Slowly pour the wax into the jar, without disturbing the wick.
- Let it dry, at room temperature (22-24 degrees Celcius) away from direct sunlight, between 24-48h.

Now that you've made your candle, you can let it sit, and in the meantime, continue watching the next lesson, see you there.

Candle Curing

When you finish making your candle, and wait for it to dry, two things happen during that time. The wax hardens, and the fragrance molecules start blending with the wax. While it may look like the wax is completely hardened after a couple of hours of pouring, that's not the case.

The wax will continue to harden for some time after it has cooled completely. This is especially the case with vegetable waxes and beeswax, due to ongoing crystal formation becoming harder as days pass.

Now when it comes to the oils and the wax will chemically bond together during the curing process. This is not true, what happens, is with the fragrance molecules inside. If the temperatures, or mixed correctly, the fragrance can seep out of the wax and cause sweating.

Candle curing can benefit two things, and that is scent throw and burn time. How long you should cure your candle though, depends on the type of wax you are using.

Soy wax usually requires anywhere between 10 to 14 days to cure.

Coconut wax will require anything between 14 to 21 days to completely cure.

You can still get a scent throw from your candles, even if you don't cure them, but for optimal results, you might want to consider doing that.

Candle Testing

Candle testing is extremely important because candles are hazardous products. If the flame is too big, the jar can get too hot and shatter. If the fragrance load is too much, enough of it can seep out of the wax and also cause a hazard. For these reasons, testing is crucial before you send your candle out to anyone.

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CHAPTER 6: MAKING A CANDLE

What you need to test for, is the following:

- Scent throw, both cold and hot.
- Burn time in 3-4 hour intervals, and don't forget to trim your wick to $\frac{1}{4}$ inch before testing again. Also leave enough time for the wax to harden, before burning again. (Usually after 2.5 - 4 hours)
- Soot, flame height, mushrooming, tunneling, sweating, and any excessive frosting.

In the helpful resources, you can find a page that you can print, and this will help you keep note of your test, and what happened to the candle at specific time intervals.

Remember, it is very important to test your candles before trying to sell them. Spend a few months more in testing, and avoid the hassle of dealing with a frustrated customer.

Candle making in different weathers

When making candles, you will have to deal with a change in temperature during different seasons. **Get The Full Version To See More** If you are one of the lucky ones, if you suffer with extreme heat during the summer and extreme cold during the winter, you will have to change to your formula based on the weather.

During the summer

- Decrease the pouring temperature of your wax by a few degrees
- Keep the candles in a stable, moderately cool temperature. What I found to be perfect is 24 degrees Celcius.
- Dont put your candles in direct sunlight
- Keep the air conditioner on if you can, and set it to a fixed temperature. Just make sure there is no excess moisture coming out of it.

During the winter

- Make sure to heat up your jars, especially if you are using vegetable based waxes. Failure to do so, will make your wax freeze much faster on the sides, and cause issues like wet spots. You can use a heat gun to do that, or pop your jars in the oven for a few minutes.
- Your pouring temperature has to be increased by a couple degrees, and this is to prevent the wax from cooling too fast and causing crystallization issues.
- Make sure your candles are in a controlled environment with no ups and downs in the temperature.

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CHAPTER 7: CANDLE TROUBLESHOOTING

Common candle problems

Coming across issues when making your candles, is very common, especially if it's your first few candles, or if it's a new type of wax that you're testing. The good thing is, that I faced a lot of issues, and I managed to make a list of ways in which you can solve them.

In the next couple of sections, we will be going through all the common issues that you can face while making your candles, and how to fix them.

How to fix candle sweating

Candle sweating is when you have drops of fragrance oil surfacing on top of your wax. This can happen at any time in your candle's lifetime. This is usually caused by four reasons:

- Pouring the fragrance in your wax at the wrong temperature
- Not stirring your fragrance long enough
- Too much fragrance load added to your wax
- Inconsistent room temperature

The solutions are pretty straightforward but require some testing. You have to check your problem first.

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If the problem was A, then you might want to pour your fragrance oil into the wax at a bit hotter temperature, but still under the fragrance oil's flash point.

If the problem was B, then you have to slowly and gently stir the wax for 2 minutes straight after you put in the fragrance oil.

If the problem was C, then you have to decrease your fragrance load, try going 1% under in increments, and test it out.

If the problem was D, then you have to keep your candles in a cool, dark room as they cure. Also, make sure your candles are not in direct contact with sunlight.

Another thing that you can try is to dry the oily spots with a paper towel gently, and you are good to go. Based on my experience, after drying the excess oil, the oils will make their way back inside the wax after curing for 7-10 more days.

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CHAPTER 7: CANDLE TROUBLESHOOTING

Weak scent throw

What is a candle, without proper scent? If you are struggling with getting a proper scent throw from your candles, then you have to check the following:

- Make sure you have enough fragrance oil for the wax that you are using.
- Not giving enough time for your candles to cure.
- Make sure you didn't pour your fragrance in the wax at a temperature higher than the oil's flash point.
- Make sure you have high-quality fragrance oils made for candle making.
- Not big enough melt pool.
- You poured the oils in the wax at a cold temperature.

If the problem is A, you have to check your wax label and find out the maximum fragrance load that it can handle.

If the problem is B, you have to let your wax cure for 21 days if it's cocosoy, and 14 days if it's pure soy. Now this is a controversial topic, but I personally believe in it.

If the problem is C, check the flash point of your fragrance oil and pour your fragrance into the wax under this temperature.

If the problem

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If the problem was E, then you didn't give your candle long enough to get a full melt pool, or you are underwicked.

Finally, if the problem was F, then you probably poured your oils at a low temperature, and this didn't allow both to mix well.

One more thing worth noting, soy wax on its own is a bit hard to get a strong scent throw. I'm not saying it's not possible, but it requires more testing. This is why we use a cocosoy blend, because as we mentioned in Chapter 2, coconut wax is softer and has a lower melting point, and this allows the fragrance oil to evaporate faster.



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CHAPTER 7: CANDLE TROUBLESHOOTING

How to fix a sinkhole and air bubbles

A sinkhole happens when you pour the wax too cold, and the top freezes before the bottom. This causes the wax to suck down on itself as it continues to dry.

To fix this, you can pour your wax at a higher temperature, and leave it at room temperature until it solidifies completely.

If you already have a candle with a sinkhole, you can use a heat gun to fill in the gaps and additionally pour some extra wax to top it off.

Air bubbles on the other hand are caused by two reasons:

- You were too aggressive while stirring the fragrance.
- You poured the wax into your jar too fast.

The next time you make a candle, keep note of those issues, but if you already have air bubbles, you can poke some holes in your candle after it dries, especially around the wick, and then use a heat gun to fill in the gaps.

How to fix frosting

Frosting is a new layer of wax that forms on top of your candle. It is caused by using too much wax, or vegetable waxes. This is caused by the way your candle performs, scent-wise and burn-wise. It is this white layer that happens on top of your candle.

Usually, a quick session with the heat gun will fix the problem, but if you want to avoid it altogether, just avoid keeping your candles in a cool area while they are still wet. This is a sign that the candle cooled faster than usual.

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CHAPTER 7: CANDLE TROUBLESHOOTING

How to fix tunneling

Tunneling is where your candle can't achieve a full melt pool, and then additional wax ends up being wasted on the sides of your jar. Four reasons could cause this:

- Your wick size is too small
- The wick is clogged due to additives like dyes, or excess fragrance
- The wick was cut too short
- The candle wasn't lit long enough on the first burn.

If the problem was A, then you have to wick up. Depending on the size of the tunnel, you have to assess whether you need to go one wick size higher, or more.

If the problem was B, try adding less dye, and stay within the recommended fragrance load that the wax manufacturer recommends.

If the problem was C, you should only trim your wick to ¼ inch. Anything less than that will result in a small flame and in return a tunnel, or even the wick turning off on its own.

If the problem was D, you have to burn your candle to achieve a full melt pool. If this wasn't do underwicked.

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How to fix wet spots

A wet spot is when the wax pulls away from the jar. This happens when your space or the container itself is cold, and the wax is hot. The wax contracts as it cools, and in return, pulls away from the jar.

To avoid this, make sure your jars are heated, or set at room temperature. If you don't have so much control over the room temperature, you can use a heat gun to heat up the jar from all sides before pouring. Alternatively, you can place the jars inside your oven to get them up to a specific temperature. Just make sure they are not burning hot.

If you end up with wet spots after the wax sets in the jar, you can still use a heat gun on those spots, and it will partially fix the problem.

This issue is common in soy wax, and will not affect your candle performance.



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CHAPTER 7: CANDLE TROUBLESHOOTING

Personally, I would ignore this. If you don't like how they look at all,

Now is a great time to give yourself a tap on the back, and maybe a mini celebration as you are almost done with this candle-making course, and on your way to making your own candles.

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CANDLE MAKING BOOKLET

CHAPTER 8: CLOSING THOUGHTS

Tips & Tricks

As you make more candles, you will learn small tricks that can help you be more efficient, and improve your candle-making process. Here are a few of them that I learned throughout the years:

Wick Testing

If you are testing for wick size, you don't have to waste a lot of wax every single time by creating different candles for every jar. Once you burned your candle long enough, say 4 hours, and you are not satisfied with the results, you can use any tool to scoop out the wick, and then replace it with another one. No need to use a sticker, just place the wick as close as possible to the center and re-melt the wax using a heat gun to melt the wax until it freezes, and then light it up again.



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How much wax

If you want to know how much wax can fit in a jar, then fill it with water, measure it using a scale, and multiply that number by 0.8. This is how much wax you need to fill the jar to the desired height.

Wax Weight: Water weight * 0.8

Just make sure to dry your jar thoroughly, leaving no traces of water, before using it again for your candle.



CANDLE MAKING BOOKLET

CHAPTER 8: CLOSING THOUGHTS

Fragrance Load

More fragrance oil does not mean more scent throw. This can actually clog your wick, cause your candle to sweat, and even cause problems with the overall candle performance. Always follow your wax supplier's recommendation, and perform different tests starting from the 6%, and working your way up until you are satisfied.

When to use a heat gun

A heat gun can be used for multiple reasons.

- You can use it to heat up your jars before pouring
- You can use it to flatten out the surface if it's a bit rough
- You can use it to clear out the frosting
- You can use it to potentially fix wet spots
- You can use it to clean wax stuck on your workstation surface

Avoid putting candles on marble or cold surfaces when they're cooling

Cold surfaces can cause the wax to crack as it cools. So keep your candles on surfaces that don't change temperature over time.

Closing Thoughts

Well, this wraps up our container candle-making class. I am really proud of you for getting to the end. Don't forget, once you make the candle, please share your results on Instagram stories, and tag @wickmagic.

If you need any help in the future, you can always reach out, we are more than happy to answer your questions. You can also always revisit any part of this booklet as it will always be available to you, even if you lost it from your device.

Anyway, thank you so much for reading through, and I wish you the best of luck.

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HELPFUL RESOURCES

Candle Science Wick Guide

<https://www.candlescience.com/learning/wick-guide/>

Candle Test Sheet

<https://wickmagic.com/wp-content/uploads/2024/05/Candle-Test-Sheet.pdf>

Olfactory Pyramid

<https://wickmagic.com/wp-content/uploads/2024/05/The-Olfactory-Pyramid.pdf>

Fragrance Wheel

<https://wickmagic.com/wp-content/uploads/2024/05/The-Fragrance-Wheel.pdf>

Where you can source your materials

Candle Containers: Within the UAE & Internationally

- <https://candlestart.com/>
- <https://alibaba.com/>

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Candle equipment and tools: Within the UAE & Internationally

- <https://candlestart.com/>
- <https://temu.com/>
- <https://amazon.com/>

Fragrance Oils: Within the UAE

- <https://candlestart.com/>

Fragrance Oils: Internationally

- <https://www.theflamingcandle.com/>

All candle supplies: London, Europe, and US

- <https://www.luxurycandlesupplies.co.uk/>

All candle supplies: Australia & New Zealand

- <https://luxurycandlesupplies.com.au/>

Additional Resources

- <https://candlescience.com/> – Everything candle material (Easy shipping for the US, but if you are not located there, you might need to find your own shipping company to be able to deal with them)

Thank
you!