

# EcoSoya® CB-Xcel Instructions

MELT POINT 125°F (52°C)

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Fragrance Program	<a href="http://www.ngiwax.com">www.ngiwax.com</a>

When targeting optimal pour temperature, accommodate for temperature drop due to the addition of the cooler fragrance. Optimum hot scent throw is achieved with a full diameter burn pool at a depth of ¼ to ½ inch (0.6 to 1.3 cm). To achieve optimum results test a variety of different fragrances and fragrance manufacturers.

## Wicking

CB-Xcel requires larger wicking than paraffin. Wicks such as paper cored, cotton cored, or metal cored should be avoided as they tend to cause sooting and carbon build-up. **A general rule of thumb: If the candle is properly wicked, it should have a full burn pool of ¼ to ½ inch (0.6 to 1.3 cm) deep, from side to side, in approximately the same number of hours for every inch (2.5 cm) of the container diameter.**

*Example: An Apothecary jar with a diameter of 4 inches (10.2 cm) should achieve a burn pool depth of ¼ to ½ inch (0.6 to 1.3 cm), side to side, within about 4 hours.*

The following table, *listed in no particular order*, suggests a **starting** point for the type and size of wicks to begin testing with; adjustments *may* be necessary. Keep wicks trimmed to ¼ inch (0.6 cm). If you experience poor flame quality or stability, try a different type of wick. Test burning should be done after the candle has had a chance to completely cure for 48 hours after pouring.

## Containers/Jars

Containers and jars should be approved for candles, clean, and at ambient temperature. No pre-heating is necessary.

## Dyes

Most dyes (powder, liquid, chips, blocks, etc.) work with CB-Xcel. To achieve better color depth, use about 30% more dye. When using powder dyes, heat the wax to 200°F (93.3°C), add the dye, and mix until completely dissolved. Powder dyes may also be dissolved in fragrances and then added to the melted wax (be sure the dye has dissolved completely before adding). *\*If choosing to add powder dyes dissolved in fragrance, liquid dyes, color blocks, chips or no dye, it is only necessary to heat wax to 155°F (68.3°C).*

## Fragrances

Due to its advanced technology, it is very important to work with the fragrance manufacturer to **select fragrances specifically designed and tested for CB-Xcel**. Please do not assume that a fragrance working in any other wax (soy or paraffin) will automatically work in CB-Xcel. (Visit [www.ngiwax.com](http://www.ngiwax.com) for Fragrance Program suggestions.) Recommended maximum scent load is about 12%. To minimize scent loss, add scent prior to pouring, but at a wax temperature no less than 135°F (57.2°C).

### Wick Suggestions for Beginning Testing

Container Diameter			
1-2 inches (2.5-5.1 cm)	2-3 inches (5.1-7.6 cm)	3-4 inches (7.6-10.2 cm)	4 -4+ inches (10.2 cm)
•Flat Braid: 18 •CD: 5 •Eco: 2 •RRD: 34 •Square Braid: #4/0 •HTP: 2 •Wood Wick: 1/4 inch width (0.64 cm)	•Flat Braid: 30 •CD: 12 •Eco: 6 •RRD: 40 •Square Braid: #1 •HTP: 104/105 •Wood Wick: 3/8 or 1/2 inch width (0.95-1.27cm)	•Flat Braid: 60 •CD: 20 •Eco: 14 •RRD: 50 •Square Braid: #3 or 4 •HTP: 1212 •Wood Wick: 5/8 or 3/4 inch width (1.58-1.9 cm)	<i>Typically requires double wicking. Try using 2 wicks at 1 inch (2.5 cm) apart</i>  •Wood Wick: 7/8+1/2 inch width (2.22+1.27 cm)

*\*\*Wick sizes and types to try are not limited to those listed\*\**

## Melting

Melt CB-XceL to a minimum of 165°F (73.9°C)\*\* under gentle agitation to promote even heating and thorough mixing. *Temporary* high temperatures such as 200°F (93.3°C) have no adverse effect if cooled quickly. Higher temperatures, in excess of 200°F (93.3°C), may cause the wax to discolor. Allow the wax to cool to the desired pour temperature. **\*\*When using powder dyes, heat the wax to 200°F (93.3°C) to ensure dye is completely dissolved.**

## Pouring

Pour temperatures will vary according to container type and size, fragrance(s), essentials oils, dye(s), and the candle effects you desire.

Different container configurations result in various cooling rates. Cooling too quickly or too slowly can cause concaving and/or frosting. **A recommended starting temperature is 140°F (60° C).** Adjustments up or down may be necessary. CB-XceL can be poured as low as 107°F (41.7°C) if the wax is continually mixed until poured. If choosing to pour at 135°F (57.2°C) or lower, first add the scent at a higher temperature (about 140°F (60°C)), then allow wax to cool to desired pour temperature. Pour temperatures should be checked and confirmed according to seasonal changes.

As the candle is being poured, it is typical for wax to solidify at first contact with the container. CB-XceL should have a pour temperature high enough so that when the container is full, the initial solidified wax has re-melted. Please note--the temperature should not be so high that the liquid wax sits more than 30 minutes before starting to solidify.

**CB-XceL Multi-Layer Pour:** When using CB-XceL two pours may be desired for multiple layers. Perform the first pour and allow the candle to set up with a warm but congealed soft center. If the top of the candle has “skinned” over and left a void inside, poke two holes into the candle near the wick.

The second pour is done at a temperature 10°-15°F (6°-8°C) lower than the original pour temperature while the candle center is still warm but congealed.



### **General Rule of Thumb**

***It is typical during pouring for the wax to solidify at first contact with the container. Pour temperatures should be high enough that when the container is full, the initial, solidified wax has re-melted.***

## Candle Cooling

Cool undisturbed candles at an ambient temperature of about 68°-75°F (21.1°-23.8°C). Containers should be about 1/2 inch (1.3 cm) apart to allow air circulation for even cooling. Containers should remain open during cooling for at least the first 24 hrs (large candles may require longer times). CB-XceL is designed to adhere to the glass and should be encouraged to do so. Slower cooling encourages adhesion, whereas quick cooling encourages the wax to pull away from the container. Candles should be allowed to sit undisturbed for 48 hours before test burning.

## Test Burning

All test candles must have a wick in place regardless of whether or not they are intended for burning.

Test burn the candle for burn pool diameter and quality after it has setup (cured or dried) for a minimum of 48 hours. Every combination of container, wax, dye, fragrances, and wick should be tested for burn quality.

## Storage

### Packaged:

CB-XceL flakes should be stored in the original, sealed packaging in a cool, dry location away from direct heat, sunlight, and moisture. Temporary extremes in temperatures, cold or hot, have no adverse effect. CB-XceL may be used frozen, and, if partially melted, allowed to cool and re-solidify before use.

### Liquid Bulk:

Instructions entitled “*Bulk Handling of EcoSoya® Soy Waxes*” available from NGI, LLC upon request.

## General Trouble Shooting

Test for one variable at a time when trouble shooting to isolate the cause. Variables include (but are not limited to): the container, wax, dye, fragrance, wick, pour temperature, and environmental conditions such, as cooling temperature, along with manufacturing conditions.

- First, make a candle in the container with only the wick (no dye or fragrance). If it looks good then the wax is performing normally.
- Then, one at a time, change a variable. Try adding the dye without fragrance to the container, wax and wick. If it looks good and burns well, the dye is compatible with the wax.
- Try adding the fragrance without dye to the container, wax and wick. If it looks good and burns well, the fragrance is compatible with the wax.
- Try the dye and fragrance together with the container, wax and wick. If it looks good and burns well the dye/fragrance combination is compatible with the wax.
- If you are experiencing burn problems, try a different type and/or size of wick.
- Other variables to try are different pouring and cooling temperatures and even different containers.
- Ensure all equipment and materials are contaminant free.

## Helpful Tips

- Since the wick acts as a site for crystallization, it is *crucial* to have a wick in every candle, *including test candles*, in order to avoid cracks and cavities.
- Seasonal changes may require higher pour temperatures during cold months, and lower pour temperatures during warmer months.
- Faster cooling can be accomplished by: lowering the ambient temperature, increasing air circulation, spacing candles apart, lowering pour temperatures, and changing the cooling surface.
- Slower cooling can be accomplished by: increasing the ambient temperature, increasing the pour temperature, indirectly covering the candles, and cooling candles on an insulated surface.
- Although the wax may experience clumping during shipping, this *does not* affect the performance of the wax.
- “Sweating” or “bleeding” may be seen as droplets on the candle surface at room temperature. This could be a result of fragrance incompatibility and may be resolved by changing the scent type and/or manufacturer.
- When testing different components such as scents, dyes, and wicks, a minimum of three (3) candles is recommended for *every* test.

## Shelf Life

When stored properly as per instructions, packaged CB-Xcel has a minimum shelf life of 3 years.



***Test for one variable at a time when trouble shooting to isolate the cause.***

*The recommendations above are only suggestions; results may vary. Carefully follow all safety precautions and directions recommended by the manufacturer of any tools, materials, and equipment being used.*