

EcoSoya® CB-135 Instructions

MELT POINT 122°F (50°C)

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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-135. To achieve better color depth, use about 30% more dye. When using powder dyes, heat the wax to 190°F (87.8°C), add the dye, and mix until 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). **When using powder dyes dissolved in fragrance, liquid dyes, color blocks, chips or no dye, heat the wax to 155°F (68.3°C).*

Fragrances/Essential Oils

Many fragrances and essential oils work in CB-135, especially those designed for soy wax in general. (Visit 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). Accommodate for temperature drop due to the addition of the cooler scent when targeting the pour temperature. 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-135 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: 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 wicks to begin testing with; note that adjustments may be needed. 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 set up and cure for 48 hours after pouring.

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 (0.95-1.27 cm)	•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-135 to a minimum of 155°F (68.3°C) under gentle agitation to promote even heating and thorough mixing. When using powder dyes, heat the wax to 190°F (87.8°C) to ensure the dye dissolves completely. *Temporary* high temperatures, such as 190°F (87.8°C), have no adverse effect if cooled quickly. Higher temperatures in excess of 190°F (87.8°C), may cause the wax to discolor. Allow the wax to cool to the desired pour temperature.

Pouring

Pour temperatures will vary according to container type and size, fragrance(s), essential oils, dye(s), and the affects you want to achieve. CB-135 can be poured as low as 100° F (37.8° C) if the wax is kept in motion (constant mixing) until poured. Lower pour temperatures may help to reduce frosting while producing a smooth top and good adhesion.

Different container configurations result in various cooling rates. Cooling too quickly or slowly can cause concaving and/or frosting. **A recommended starting temperature is 140° F (60° C).** Adjustments up or down may be necessary. Pour temperatures should be checked and confirmed according to seasonal changes.

During pouring, it is typical for wax to solidify at first contact with the container. CB-135 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.

When candles are poured at a lower temperature (about 110°F (43.3°C)), add the scent at a higher temperature (about 140°F (60°C)) and allow the wax to cool to the desired pour temperature.



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 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). The containers should be about 1/2 inch (1.3 cm) apart to allow air circulation for even cooling. The container should remain open during cooling for at least 24 hours (large candles may require longer times). Slower cooling will encourage container adhesion while quicker cooling will encourage container pull away. CB-135 is designed to adhere to the glass and should be encouraged to do so. Candles should be allowed to sit undisturbed for 48 hours before test burning.

Test 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, fragrance, and wick should be tested for burn quality.

Storage

Packaged:

CB-135 flakes should be stored in a cool dry location away from direct heat, sunlight and moisture in the original sealed packaging. Temporary extremes in temperatures, cold or hot, have no adverse effect. CB-135 may be used frozen, and, if partially melted, allowed to cool and re-solidify before use.

Liquid Bulk:

Liquid CB-135 should be stored just above its melt point, without agitation under a nitrogen blanket. Tanks and valves should be composed of black iron or stainless steel. Contact with copper or brass will cause discoloration and off-odor. Please refer to the document "Bulk Handling of EcoSoya[®] Soy Waxes" available from NGI.

- 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 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.

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.



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

Shelf Life

When stored properly as per instructions, packaged CB-135 has a minimum shelf life of 3 years.

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.