PB INSTRUCTIONS

MELT POINT 130°F (54.4°C)

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TABLE OF CONTENTS

Molds

Molds should be clean and room temperature. Conditioning is recommended with new molds or molds previously used with paraffin. This simply involves thoroughly wiping the insides walls with warm soybean/vegetable oil.

Dyes

Most dyes (powder, liquid, chips, blocks, etc.) work with PB. 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 to155°F (68.3°C).*

Fragrance

Many fragrances work in PB, especially those designed for soy wax in general. Refer to Appendix B for 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 145°F (61.1°C). Accommodate for temperature drop due to the addition of the cooler scent when targeting the pour temperature. Some scents may react poorly causing bleed, objectionable frosting, or poor flame quality. Try a different scent or manufacturer to correct that occurrence.

Wicking

PB 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. PB tends to burn more down than out creating a Hurricane Candle effect in pillar candles.

Scent, color and candle configuration have a great impact on the best wick choice. Too large of a wick may cause sooting, quick burn times and guttering (wax leaking through the side of the candle).

The following table suggests wick types and sizes to begin testing, although 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.

CANDLE	INITIAL WICK SUGGESTIONS TO BEGIN TESTING Wick sizes and types to try are not limited to those listed.
Votive Size	**HTP: 41 or 62** **Eco: 1** **Flat Braid: 18** **RRD: 29** **CD: 4 or 5** **Square Braid: #5/0**
Pillar: 2 – 3 inch (5.1 cm – 7.6 cm) diameter	**HTP: 83, 104 or 105** **Eco: 6** **Flat Braid: 24** **RRD: 37** **CD: 10 or 12** **Square Braid: #1/0**
Pillar: 3 - 4 inch (7.6 cm – 10.2 cm) diameter	**HTP: 1212** **Eco: 14** **Flat Braid: 42 or 45** **RRD: 50** **CD: 20** **Square Braid: #3 or #4**
Diameter: 4 inches and larger (10.2 and larger)	**Typically requires multiple wicking. Try using 2 or 3 smaller wicks evenly spaced or in a triangular pattern.**

Melting

When using dye, except for powdered or un-dyed PB, melt the wax to a minimum of 155°F (68.3°C) under gentle agitation to promote even heating and thorough mixing. For powder dyes, heat the wax to 190°F (87.8°C) to ensure the dye dissolves. 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

It is typical for wax to solidify at the beginning of the pour during its first contact with the mold. PB should have a pour temperature high enough so that when the mold is full, the initial solidified wax has re-melted. The temperature should not be so high that the liquid wax sits more than 30 minutes before starting to solidify.

Pour temperatures will vary according to mold type and size, fragrance and dye, and the effects preferred. PB does not normally produce static electricity or bubbles when poured, tapping of the molds is not necessary.

There is a difference in cooling rates for different mold configurations. Cooling too quickly or too slowly can cause cracking and/or frosting. If difficulties are experienced with your pour temperatures, try a lower or higher temperature in increments of 10°F (6°C).

PB Double-Pour: When using EcoSoya® PB two pours are required with candles such as 3 & 4 inch (7.6 cm & 10.2 cm) diameter pillars. The first pour is done at 155°F (68.3°C) by filling the mold to the top and allowing the candle to set up with a warm but congealed soft center. If the top of the mold (bottom 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 140°F (60.0°C) while the candle center is still warm but congealed.

Do not pour past the solidified wax of the first pour; in essence “fill” the first pour.

Making Votives with PB: The first pour is done at 155°F (68.3°C) by filling the mold to within *1/8* inch (0.3 cm) from the top. Allow the votive to cool until it's still warm with a congealed center that has no liquid. If the top of the candle has "skinned" over, poke two holes near the wick. Pour a second time at 140°F (60.0°C) to completely fill the votive mold.

Pour temperatures should be checked and confirmed according to seasonal changes.

Candle Cooling and Mold Release

Cool undisturbed candles at an ambient temperature of 70°F (21.1°C). The molds should be at least 1/2 inch (1.3 cm) apart to allow air circulation for even cooling.

EcoSoya® PB is self-releasing. Slower cooling will encourage the candle to adhere to the mold causing it not to release, while quicker cooling will encourage pull away and release. PB is designed to shrink back from the mold for easier release and should be encouraged to do so. Silicone mold release spray may be used in the unusual event of poor release.

Candles should be allowed to sit undisturbed for 48 hours before test burning.

Candles made with PB

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 wax, dye, fragrance, and wick should be tested for burn quality.

Storage

Packaged:

PB 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. PB may be used frozen, and, if partially melted, allowed to cool and re-solidify before use.

Liquid Bulk:

Liquid PB should be stored just above its melt point, without agitation and if possible 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.

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 mold, wax, dye, fragrance, wick, pour temperature, and environmental conditions such, as cooling temperature, along with manufacturing conditions.

- First, make a candle in the mold 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 mold, 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 mold, 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 mold, 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 mold material types.
- Ensure all equipment and materials are contaminant free.

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

Shelf Life

When stored properly, as per instructions, PB has a minimum shelf life of 3 years.

The above suggestions are only suggestions; results may vary. Be sure to follow all safety precautions and directions recommended by the manufacturer of the tools, materials and equipment being used. We welcome any comments and suggestion.