



Date Prepared: 13OCT20

Date Revised: N/A

Version: 1.0

## TDS – EcoOlive PillarBlend

### Information

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#### **Product Description**

EcoOlive PillarBlend is a blend specifically developed for the production of pillar candles. It is suitable for further blending with fragrances and oil soluble dyestuffs. No animal products are used, and no animal testing has been carried out in its manufacture.

EcoOlive PillarBlend wax is a 100% natural blend of predominantly olive wax with natural performance additives to improve burn and scent throw. This wax does not contain any genetically modified ingredients, palm, or paraffin products. It is biodegradable and vegan friendly.

EcoOlive PillarBlend provides excellent hot and cold scent throw, a smooth surface finish with a subtle gloss. It only requires a single pour and is easy to remove cleanly from moulds. This wax can take a fragrance load of up to 12% with fragrance oils designed for use with natural waxes. We recommend melting this wax to around 75 degrees Celsius and pouring at 65 degrees. We recommend a cure time of 48 hours. As with all candle manufacture, we recommend thorough testing with all wax, fragrance oil and wick combinations.

#### **Physical Properties**

<b><u>Test</u></b>	<b><u>Method</u></b>	<b><u>Typical</u></b>
Congealing Point °C	ASTM D938	55
Melting Point °C	DP70	62
Viscosity @ 100°C	ASTM D445	10.7 cSt
Penetration @ 25°C	ASTM D1321	23 dmm

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## **Manufacturers Notes**

### **Moulds**

Moulds should be clean and free of contaminants. They should be at least at room temperature, although pre-heating to approx. 45 - 50°C can be beneficial.

### **Colour**

When using powder dyes, heat the wax to approx. 75°C, add the dye and mix until dissolved. Powder dyes may also be dissolved in fragrance and then added to the melted wax, be sure that the dye has dissolved completely before adding. When using powder dyes dissolved in fragrance, liquid dyes, or colour blocks heat the wax to 70°C. If you wish to make your candle darker or “richer”, add a little black dye to the colour you are using.

### **Fragrance**

EcoOlive PillarBlend has been designed for fragrance at levels between 5 - 12%. Fragrance which is specifically developed for use with natural waxes is highly recommended. Burn pool size and depth greatly affect fragrance throw so correct wicking is paramount. Some fragrances may react poorly with the wax causing bleeding, objectionable surface finishes or poor flame quality. This has been found to be exaggerated when using fragrances specifically designed for use in Paraffin wax candles.

### **Wicking**

Natural waxes tend to require larger wick sizes than traditional paraffin waxes. Fragrance, colour, and candle configuration have a great impact on the best wick choice. Too large of a wick may cause sooting, accelerated burn times and guttering (wax leaking through the side of the candle). Too small a wick will cause tunnelling and produce a smaller flame. Keep wicks trimmed to ¼ inch. 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 sit for 48 hours after pouring.

### **Melting**

Temporary high temperatures (up to 90°C) have no adverse effect as long as the wax is cooled back down quickly. Higher temperatures may cause the wax to discolour. Allow the wax to cool to your desired pour temperature, add the fragrance and mix well. Be

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sure to stir/mix the wax while melting. Avoid using receptacles containing copper and zinc as this may accelerate discolouration. Stainless Steel is the material of choice although mild steel is acceptable. Digital temperature probes are readily available and are a safer choice than the traditional Mercury in glass type.

## **Pouring**

Pour temperatures may vary according to mould type & size, fragrance & dye used and the effects the candle maker wishes to achieve. Greater release from the moulds may be achieved by pouring at temperature of around 65°C, although this will be dependent upon the size and shape of the candle being produced. Fragrance should be added and mixed immediately prior to pouring where practical. If you experience difficulties with your pour temperature, try a lower or higher temperature in increments of 5 - 10°C. Consider pouring into pre heated moulds for enhanced release properties.

## **Double-Pour**

EcoOlive PillarBlend is formulated to require only a single pour, however for some large Pillars; a top-up is required to achieve the best candle surface. A small amount of wax at a slightly warmer temperature than the candle was poured at can be used to top-up the candle before the candle is fully cool (pouring the top-up once the candle is completely cool may result in a reduction of adhesion to the Pillar).

## **Candle Cooling**

Cool undisturbed candles at room temperature (about 25°C). Candles should be allowed to sit undisturbed for 48 hours before test burning.

## **Test Burn:**

Check wicking. Test burn the candle for burn pool diameter and “mushrooming” after it has cooled for 48 hours. Mushrooming is when carbon and/or other substances build up on the end of the wick interfering with combustion. Mushrooming can cause sooting and poor odours. Try different wicks until you have your desired burn pool diameter and a good clean flame.

**Every combination of size, wax, dye, fragrance and wick must be tested for burn quality**

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