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TDS – Kerawax 4600

Information

Product Description

Kerawax 4600 is a wax blend specifically developed for the production of pillar candles. It is suitable for further blending with fragrances and oil soluble dyestuffs.

Physical Properties

Test	Method	Specification	Typical
Congealing Point °C,	ASTM D938	54-57	55.5
Viscosity @ 100°C,	ASTM D445	4-5	4.5 cSt
Penetration @ 25°C,	BS 1426	15 Max	10 dmm
Penetration @ 43.4°C,	BS 1426	80-180	142 dmm
Colour	In-house	White	White

Statement

- Formulated from materials whose refining history is fully traceable.
- Does not contain or come into contact with any animal or GMO products at any stage of its manufacture.
- Does not contain residual solvents as per guidelines CPMP/ICH283/95.
- Has not been tested on animals by ourselves or on our behalf.

Manufactures Notes

Kerawax 4600 requires no additives and has outstanding stability with no experienced shelf life issues. Old or partial candles may be re melted and the wax reused. Waxes should be stored in a cool dry location away from direct heat, sunlight and moisture.

Moulds

Moulds should be clean and at room temperature. Your moulds may need "conditioning" before using Kerawax 4600. If your candle does not release well after setting, clean the mould, re-melt the wax and re-pour. This will have "conditioned" the mould.

Colour

Most dyes work with Kerawax 4600; powder, liquid, chips, blocks, etc. Pigments do not dissolve in Kerawax 4600. When using powder dyes heat the wax to 80°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 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 70°C. If you wish to make your candle darker or "richer" add a little black dye to the color you are using.

Fragrance

Kerawax 4600 may be used with almost any fragrance at levels up to 10-12%. Burn pool size and depth greatly affect scent throw so correct wicking is paramount. Some fragrances may react poorly with the wax causing bleed, objectionable surface finishes or poor flame quality. In this case try a lower concentration, a different fragrance or manufacturer to eliminate it.

Wicking

Kerawax 4600 may require larger wick sizes than traditional paraffin waxes. They tend to burn more down than out allowing them to have longer burn periods. Scent, 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 tunneling 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

When using pre dispersed or no dye at all, heat the wax to 70°C. For powder dye use, heat the wax to 90°C, add the dye and mix until dissolved. Undissolved powdered dyes will be seen as dark specs on the bottom of the mixing container Temporary high temperatures such as 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 sure to stir/mix the wax while melting. Avoid using containers 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 you want to achieve. Scent should be added and mixed right before pouring or at higher temperatures if desired. If you experience difficulties with your pour temperature try a lower or higher temperature in increments of 10°C. Consider pouring into pre heated moulds for an extra glossy finish.

Double-Pour: When using Kerawax 4600 two pours are required with larger candles such as 3 & 4 inch pillars. Do the first pour at 65°C by filling the mould to the top and allowing the candle to cool until it's still warm with a congealed center that has no liquid. If the top of the Mould (bottom of the candle) has "skinned" over and left a void inside, poke two holes into the candle near the wick and pour a second time at 60°C.

Making Votives: Make the first pour at 65°C by filling the mould to within an ⅛ inch from the top. Allow the candle to cool until it's still warm with a congealed center that has no liquid. If the top of the candle has "skinned" over, create two holes near the wick and pour a second time at 60°C to completely fill the votive mould.

Candle Cooling and Mould Release

Cool undisturbed candles at room temperature (about 25°C). The Moulds should be about ¼ to ½ inch apart to allow air circulation for even cooling. Kerawax 4600 is self-releasing. Spray silicone Mould release may be used in the unusual event of sticking. If difficult Mould release is experienced, placing the Mould/candle in the refrigerator for a few minutes will cause the candle to release. 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 Mould, wax, dye, fragrance and wick must be tested for burn quality***