

FRAG1641

**RECIPE - 20CL**

**BLACK ORCHID IN GOLDEN WAX S41**

# CANDLE SHACK

## DESCRIPTION



## INGREDIENTS FOR EACH CANDLE

<a href="#">1x 20cl Candle Jar</a>
<a href="#">9.9g of Black Orchid Fragrance Oil</a>
<a href="#">155.1g of Golden Wax S41</a>
<a href="#">1x Stabilo10 Wick</a>
<a href="#">1x 15mm Adhesive Wick Pad</a>
<a href="#">1x Three Jar Wick Centering Tool</a>

## WAX

Golden Wax S41 is a super soft soybean wax that retains fragrance beautifully and burns incredibly cleanly. This plant wax has a beautiful hot throw and stability while offering excellent ease of wicking. Suitable for vegans, S41 is completely devoid of GMO and synthetic additives.

## VESSEL

Our Lotti 20cl glass is manufactured in Italy and meets the highest standards of clarity and tolerance.  
Height: 84mm  
Diameter: 70.5mm  
Internal height: 66mm

## WICK

Stabilo candle wicks are one of the best and brightest wicks for home and professional scented candles alike. They are coreless, non-directional flat-braided wicks with a special paper filament woven around them. With their unique configuration, they enable consistent capillary action while ensuring a wick-trimming flame posture. All wicks are 110mm long with a thin paraffin coating for stability.

## USAGE RECOMMENDATIONS

- We recommend heating S41 to 60°C to melt.
- Add the fragrance at 60°C and stir until the oil has dissolved.
- The mixture is ready to pour at around 31°C when it starts to look cloudy.
- Leave the candle to cure for at least 2 days at 20°C for the best results.

## DISCLAIMER

Each report shows test results for a set of candles made by Candle Shack's R&D team for that particular recipe. The test reports are not a guarantee that all candles made to the recipe will burn in exactly the same way. Variables such as ambient temperature, air flow, or the manufacturing process can affect the burning profile of a candle, so it is recommended that candle makers conduct their own testing to ensure that they are satisfied with the performance of their product.

# CANDLE SHACK

Candleshack Ltd, Unit A, West Carron Works,  
Stenhouse Road, Carron, Stirlingshire, FK2 8DR

Technical report on a test set of candles made in Candle Shack R&D department for sooting  
behaviour testing and fire safety testing

Date of Report: 15/03/23

Testing Period: 07/03/2023 - 15/03/2023

Sample Ref	RCP0096E-1	No. of Samples	3
Candle Name	20cl Black Orchid Candle, 6% in S41		
Description	165g Soy Wax Fragranced Candle		
Fragrance	Black Orchid	Weight per candle	9.9g
Wax	Golden Wax S41	Weight per candle	155.1g
Colour	White	Height	84mm
Wick Type	Stabilo10	Top Diameter (ext)	70mm
Wick Positioning	Centred	Top Diameter (int)	65mm
Surface Defects	None	Base Diameter	67mm

## TECHNICAL REPORT

### Part 1: SPECIFICATION FOR SOOTING BEHAVIOUR

To evaluate the performance of a test set of candles in a controlled environment against the requirements of BS EN 15426:2018 (Candles. Specification for sooting behaviour)

### Part 2: SPECIFICATION FOR FIRE SAFETY

To evaluate the performance of a test set of candles in a controlled environment against the requirements of BS EN 15493:2019 (Candles. Specification for fire safety)



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## Part 1: SPECIFICATION FOR SOOTING BEHAVIOUR

### Requirement

When tested in accordance with clause 9 of EN 15426:2018, the average soot index per hour from three tests (samples) shall be less than 1.0/h

The room temperature during testing was 20±5°C

Wicks were trimmed to 5mm before lighting.

Cycles: 3 x 240 ± 5 min cycles with >60min pause between cycles)

Soot testing was performed in wire mesh cylinder Type 2 (Diameter: 300 ± 10 mm)

Sample Ref.	Total burn time $t_m$ (h)	Hourly soot index $Si_h$	Average soot index per hour $Si_a$	Result
RCP0096E-1.1	8.00	0.06	0.06	PASS
RCP0096E-1.2	8.00	0.00		
RCP0096E-1.3	8.00	0.12		



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## Part 2: SPECIFICATION FOR FIRE SAFETY

Test Property	Test Method	Test Requirements	Result
Stability	EN 15493:2019 4.1 (Visual Check)	Candle should not tip over when placed on a 10° incline plane	PASS
Secondary Ignition	EN 15493:2019 4.2 (Visual Check)	No secondary ignition shall occur for more than 10 s	PASS
Flame Height	EN 15493:2019 4.3 (Measurement)	The flame height for all candle types, except for tea lights, shall not exceed 75mm. The flame height for tea lights shall not exceed 30mm	PASS Maximum: 20 mm
Behaviour after extinguishing	EN 15493:2019 4.5.1 (Visual Check)	After extinguishing the candle shall not spontaneously re-light	PASS
	EN 15493:2019 4.5.2 (Measurement)	The wick shall not continue to glow or smoke for an average time of more than 30 s after extinguishing	PASS Average: 11 s
Container Candles	EN 15493:2019 4.6 (Visual Check)	The container shall not crack or break at any time throughout the burning test	PASS

The room temperature during testing was 20±5°C  
Wicks were trimmed to 5mm before lighting.

Candle Performance (240 ± 5 min cycles with >60min pause between cycles)

Sample Ref.	Gross Weight (g)	Total Wax Consumed (g)	*Total Burning Time (h)	Wax Consumption Rate (g/h)
RCP0096E-1.1	394.1	147.9	40.0	3.70
RCP0096E-1.2	384	138.8	36.0	3.86
RCP0096E-1.3	385.4	138.0	36.0	3.83

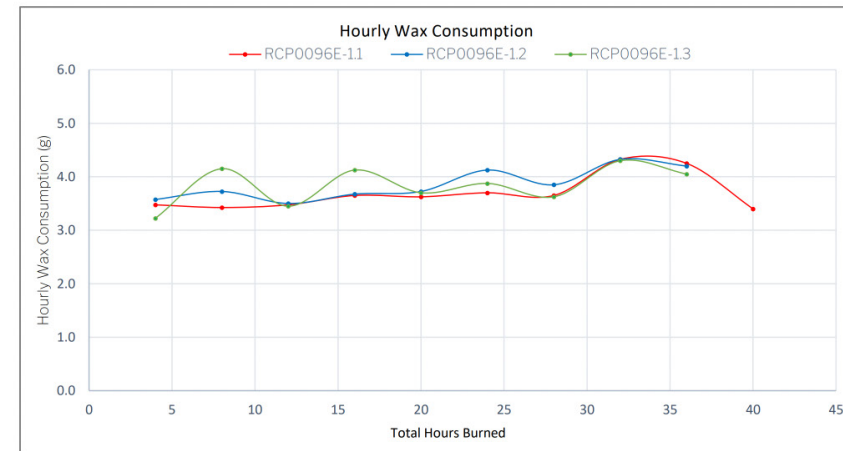
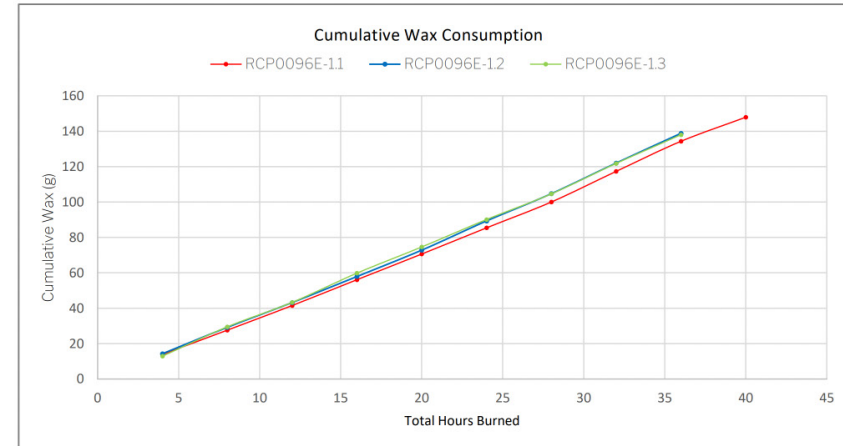
\*If a candle self-extinguishes during the final burn cycle, the time of self-extinguishing is estimated.

### Notes and Discussion:



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## CHARTS



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## IMAGE GALLERY



End of Burn Front - Sample 1



End of Burn Front - Sample 2



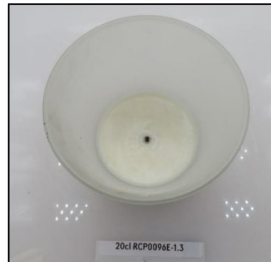
End of Burn Front - Sample 3



End of Burn Top - Sample 1



End of Burn Top - Sample 2



End of Burn Top - Sample 3

## END OF REPORT

*Patrycja Krajewska*

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Candle Making Technician

