



FRAG0711

RECIPE - 30CL

BLACK PLUM AND RHUBARB IN GOLDEN WAX S41

CANDLE SHACK

DESCRIPTION

BLACK PLUM AND RHUBARB

TOP NOTES - RHUBARB

HEART NOTES - PEAR, PEACH

BASE NOTES - PLUM, BLACKBERRY

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INGREDIENTS FOR EACH CANDLE

1x 30cl Candle Jar
17.6g of Black Plum and Rhubarb Fragrance Oil
202.4g of Golden Wax S41
1x CL12 Wick
1x 15mm Adhesive Wick Pad
1x Three Jar Wick Centering Tool

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 30cl glass is manufactured in Italy and meets the highest standards of clarity and tolerance. Height: 90mm
Diameter: 78mm
Internal height: 75mm

WICK

Crafted from unbleached cotton and interwoven with a linen thread, CL candle wicks are innovative flat wicks designed to minimise afterglow and smoking while maintaining rigidity. 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.

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Candle Shack Ltd, Unit A, West Carron Works,
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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: 08/12/22

Testing Period: 25/11/2022 - 07/12/2022

Sample Ref	S41-01M-1	No. of Samples	3
Candle Name	30cl Black Plum & Rhubarb, 8% in S41		
Description	220g Soy S41 Wax Fragranced Candle		
Fragrance	Black Plum & Rhubarb	Weight per candle	17.6g
Wax	Candle Shack Soy S41	Weight per candle	202.4g
Colour	White	Height	92mm
Wick Type	CL12	Top Diameter (ext)	82mm
Wick Positioning	Centred	Top Diameter (int)	76mm
Surface Defects	None	Base Diameter	76mm

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 S_h	Average soot index per hour S_{ih}	Result
S41-01M-1.1	12.00	0.04	0.07	PASS
S41-01M-1.2	12.00	0.10		
S41-01M-1.3	12.00	0.08		



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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: 30 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: 6 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)
S41-01M-11	545.8	216.8	56.0	3.87
S41-01M-12	543.3	201.4	52.0	3.87
S41-01M-13	548.3	205.5	56.0	3.67

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

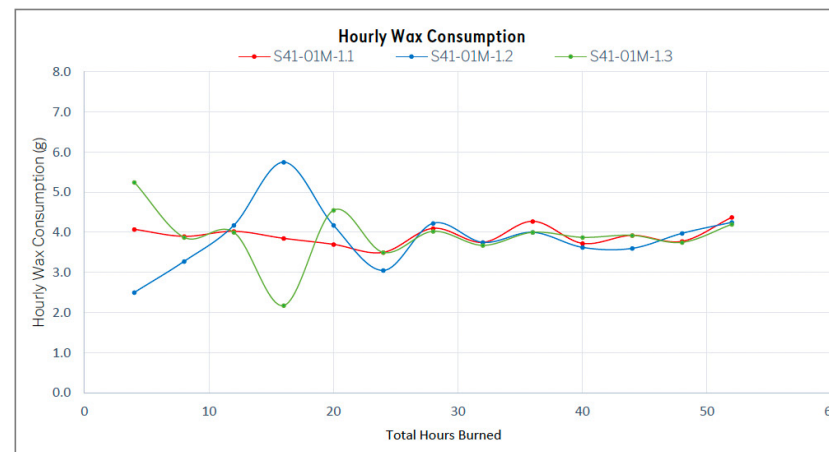
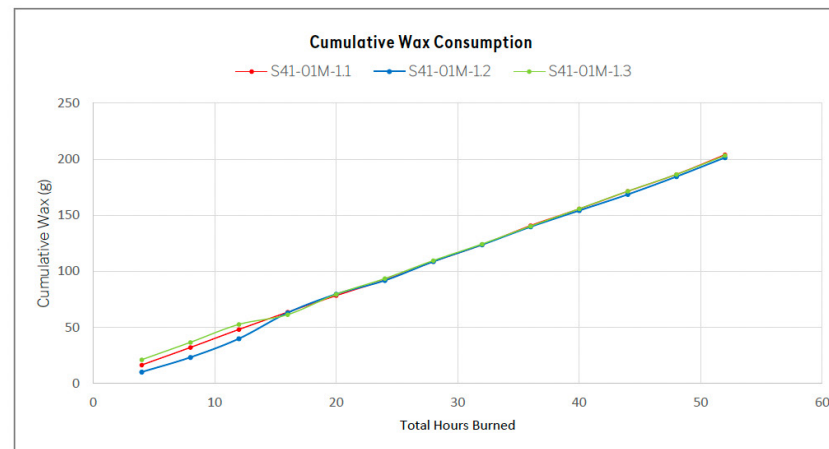
Notes and Discussion:

Wick anomaly for the first few cycles and then it evened out. Still an easy pass.



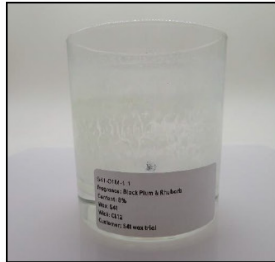
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CHARTS



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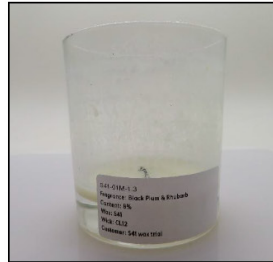
IMAGE GALLERY



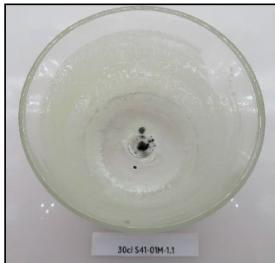
End of Burn Front - Sample 1



End of Burn Front - Sample 2



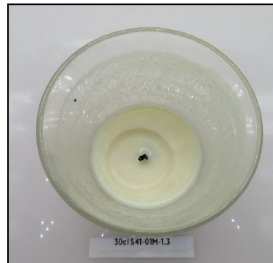
End of Burn Front - Sample 3



End of Burn Top - Sample 1



End of Burn Top - Sample 2



End of Burn Top - Sample 3

END OF REPORT

Allan Walsh
Candle Making Technician

