



FRAG4601

RECIPE - 9CL

AQUALUME IN RCX

CANDLE SHACK

DESCRIPTION



INGREDIENTS FOR EACH CANDLE

1x 9cl Candle Jar
7.5g of AquaLume Fragrance Oil
67.5g of Ecosystem RCX Container Wax
1x CL6 Wick
1x 15mm Adhesive Wick Pad
1x Three Jar Wick Centering Tool

WAX

Candle Shack's EcoSystem Rapeseed & Coconut (RCX) is a natural wax blend. It was developed in Europe exclusively for Candle Shack and is made from rapeseed and coconut oil... and nothing else! It is free from paraffin, soy, palm, beeswax and synthetic additives.

VESSEL

Our Lauren 9cl Votive glass is manufactured in Italy and meets the highest standards of clarity and tolerance.

Height: 67mm

Diameter: 56mm

Internal height: 57mm

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 working at an ambient temperature of 18 to 25°C.
- We recommend heating RCX to 60°C to melt.
- Add the fragrance at 60°C and stir for 60 seconds.
- The mixture is ready to pour at 38°C into glasses at room temperature.
- If the top is uneven once set, you can flash the surface with a heat gun or do a top-up pour to get a clean finish.
- 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: 30/01/24

Testing Period: 23/01/2024 - 30/01/2024

Sample Ref	RCP0165B-1	No. of Samples	3
Candle Name	9cl AquaLume Candle, 10% in RCX		
Description	75g Rapeseed & Coconut Wax Fragranced Candle		
Fragrance	AquaLume	Weight per candle	7.5g
Wax	Candle Shack Ecosystem RCX	Weight per candle	67.5g
Colour	Off-White	Height	67mm
Wick Type	CL6	Top Diameter (ext)	56mm
Wick Positioning	Centred	Top Diameter (int)	51mm
Surface Defects	None	Base Diameter	50mm

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)



CANDLE SHACK

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: 2 x 240 ± 5 min cycles with >60min pause between cycles

Soot testing was performed in wire mesh cylinder Type 1 (Diameter: 230 ± 10 mm)

Sample Ref.	Total burn time t_m (h)	Hourly soot index S_{i_h}	Average soot index per hour S_{i_h}	Result
RCP0165B-1.1	8.00	0.16	0.12	PASS
RCP0165B-1.2	8.00	0.16		
RCP0165B-1.3	8.00	0.03		



CANDLE SHACK

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: 15 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: 4 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)
RCP0165B-1.1	187.5	64.8	20.0	3.24
RCP0165B-1.2	192.6	66.7	20.0	3.34
RCP0165B-1.3	193.0	65.8	20.0	3.29

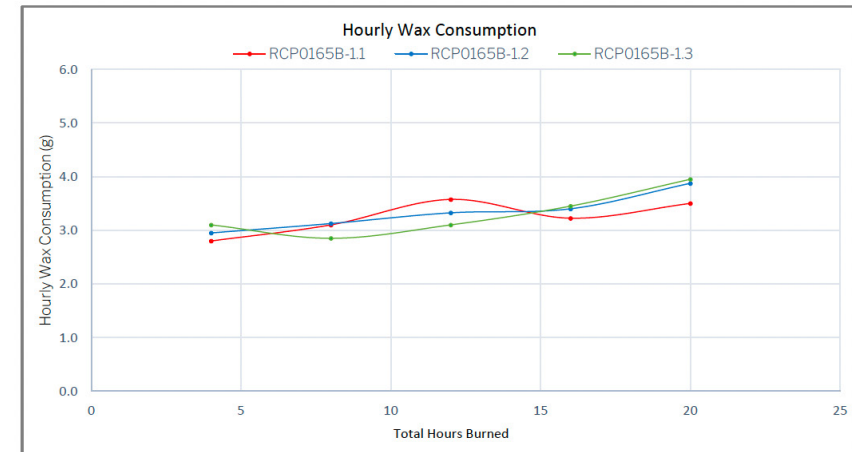
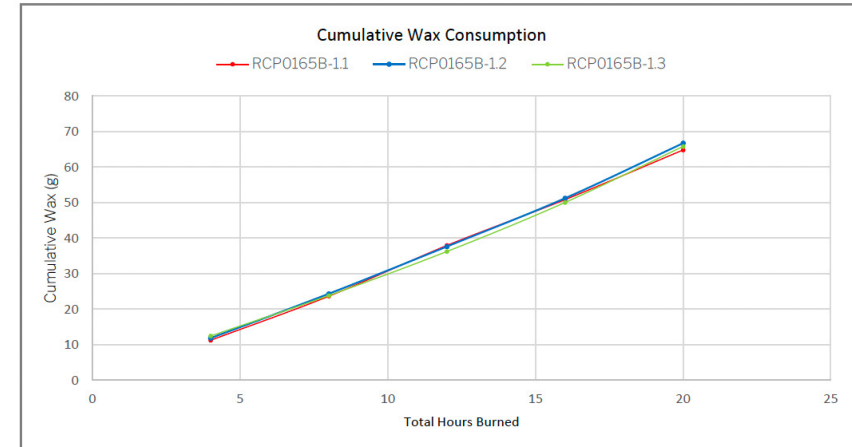
*If a candle self-extinguishes during the final burn cycle, the time of self-extinguishing is estimated.

Notes and Discussion:



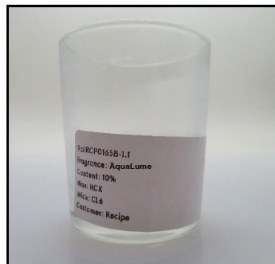
CANDLE SHACK

CHARTS

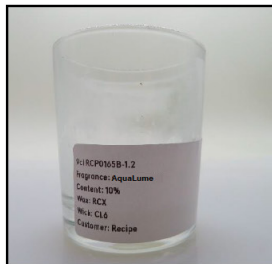


CANDLE SHACK

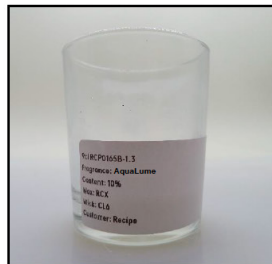
IMAGE GALLERY



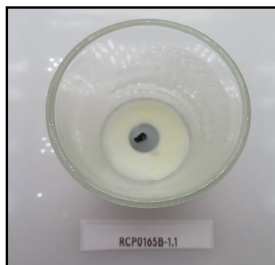
End of Burn Front - Sample 1



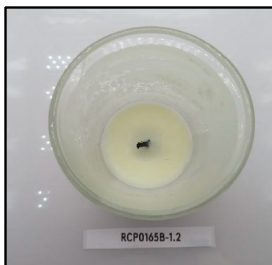
End of Burn Front - Sample 2



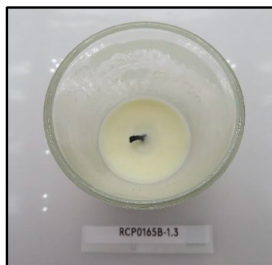
End of Burn Front - Sample 3



End of Burn Top - Sample 1



End of Burn Top - Sample 2



End of Burn Top - Sample 3

END OF REPORT

Patrycja Krajewska

Patrycja Krajewska
Development Technologist

