

RECIPE - 20CL
FRESH LINEN IN RCX

# CANDLE

#### **DESCRIPTION**

## FRESH LINEN

TOP NOTES - CITRUS, GALBANUM

HEART NOTES - VIOLET, ORANGE BLOSSOM, LILY, JASMINE

> BASE NOTES - WOODS, AMBER, MUSK

#### INGREDIENTS FOR EACH CANDLE

1x 20cl glass jar

16.5g of Fresh Linen Fragrance Oil

148.5g Candle Shack Ecosystem RCX

1x CL10 Wick

1x 15mm Adhesive Wick Pad

1x WickClaw Tool for 20cl Glass

#### WAX

Our 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! Free of paraffin, soy, palm, beeswax 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**

Our innovative unbleached cotton and linen blend CL10 wick. Flat wick designed to minimise afterglow and smoking while maintaining rigidity. All wicks are 110mm long with a thin paraffin wax coating for stability.

#### **USAGE RECOMMENDATIONS**

- We recommend heating RCX to 60°C to melt.
- Add fragrance at 60°C and stir for 60 seconds.
- The mixture is ready to pour at 38°C into slightly warmed glasses.
- 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 2+ days for 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 Ltd Unit A, West Carron Works Stenhouse Rd 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: 22/09/21 Testing Period: 29/08/2021 - 30/08/2021

| Sample Ref       | CS0301C-1                                     | No. of Samples     | 3                 |        |  |
|------------------|---|--------------------|-------------------|--------|--|
| Candle Name      | 20cl fresh Linen Candle, 10% in RCX           |                    |                   |        |  |
| Description      | 165g Rapeseed & Coconut Wax Fragranced Candle |                    |                   |        |  |
| Fragrance        | Fresh Linen                                   |                    | Weight per candle | 16.5g  |  |
| Wax              | Candle Shack Ecosystem RCX                    |                    | Weight per candle | 148.5g |  |
| Colour           | White   | Height             | 84mm              |        |  |
| Wick Type        | CL10  | 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)

Page 1 of 5



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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: 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 $t_{\rm m}$ (h) | Hourly soot index<br>Si <sub>h</sub> | Average soot index per hour Si <sub>h</sub> | Result       |
|-------------|---------------------------------|--------------------------------------|---|--------------|
| CS0301C-1   | 8.08                            | 0.11                                 |   |              |
| CS0301C-2   | 8.08                            | 0.09                                 | 0.10  | PASS         |
| CS0301C-3   | 8.08                            | 0.11                                 |   | N3/10/2/2015 |

Page 2 of 5



Candle Shack Ltd Unit A, West Carron Works Stenhouse Rd Carron Stirlingshire FK2 8DR

#### Part 2: SPECIFICATION FOR FIRE SAFETY

| Test Property                 | Test Method                           | Requirements   | Result         |
|-------------------------------|---------------------------------------|--|----------------|
| Stability                     | EN 15493:2019 4.1<br>(Visual Check)   | Candle should not tip over when placed on a 10° incline plane  | PASS           |
| Secondary Ignition            |                                       | No secondary ignition shall occur for more than 10 s   | PASS           |
| Flame Height                  | EN 15493:2019 4.3<br>(Measurement)    | The flame height for all candle types, except for tea lights, shall not exceed 75mm. The flame height for tea lights | PASS           |
|                               | (                                     | shall not exceed 30mm  | Maximum: 30 mm |
|                               | EN 15493:2019 4.5.1<br>(Visual Check) | After extinguishing the candle shall not spontaneously re-light  | PASS           |
| Behaviour after extinguishing | EN 15493:2019 4.5.2<br>(Measurement)  | The wick shall not continue to glow or smoke for an average time of more than 30 s after extinguishing               | PASS           |
|                               |                                       |  | Average: 8 s   |
| Container Candles             | EN 15493:2019 4.6<br>(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<br>Consumed (g) | *Total Burning<br>Time (h) | Wax Consumption<br>Rate (g/h) |
|-------------|------------------|---------------------------|----------------------------|-------------------------------|
| CS0301C-1   | 431.1            | 177.4                     | 36.3                       | 4.88                          |
| CS0301C-2   | 416.9            | 154.5                     | 40.1                       | 3.85                          |
| CS0301C-3   | 414.2            | 158.3                     | 40.1                       | 3.95                          |

<sup>\*</sup>If a candle self-extinguishes during the final burn cycle, the time of self-extinguishing is estimated

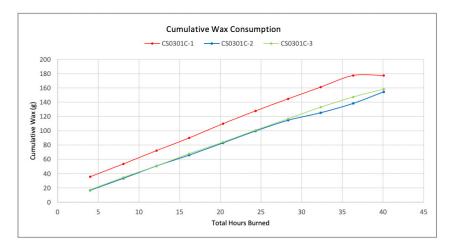
# Notes and Discussion:

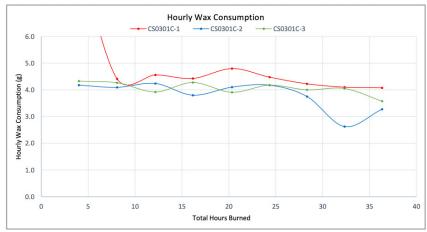
Page 3 of 5



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#### CHARTS





Page 4 of 5

### CANDLE SHACK

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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**

DRJam

David Barn Head of R&D