

# RECIPE - RECTANGLE PILLAR CANDLE ENCHANTED FOREST IN HPM

# CANDLE SHACK

# WHAT YOU WILL NEED

1x Rectangle - Pillar Candle Mould

12.9g of Enchanted Forest Fragrance Oil

417.1g of HPM Wax

1x LX10 Wick (250mm)

1x 2.5mm Diameter Metal Rod

1x Blu Tack

1x Lolly Stick

# THE STEP-BY-STEP PROCESS

## STEP1

Insert the wick rod into the wick hole and seal it at the base of the pillar mould with Blu Tack.

### STEP 2

Melt HPM wax at 75°C.

### STEP 3

Once the wax is fully melted, add your fragrance and stir it for around 1 minute until the mixture is homogeneous.

### STEP 4

Slowly pour it into your mould to your desired height.

### STEP 5

Place the wick rod through the wick rod centring tool to keep the rod centred.

### STEP 6

Leave your wax to solidify and when it has fully set, usually after around 2.5 hours, remove the wick rod centring tool and top up your candle to fill any dip that may have formed.

# STEP 7

When the candle has fully set, around 5 hours after the initial pour, carefully remove the wicking rod and pop the candle out of the mould.

# STEP 8

Thread the pre-waxed wick through the hole and push the sustainer into the base of the candle.

# STEP 9

Melt the bottom of the candle on a hot baking tray to give a flat and level base.

# STEP 10

Let the candle cure for 48 hours and trim the wick to 5mm before lighting it.



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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:** 12/10/23 **Testing Period:** 29/09/2023 - 12/10/2023

Sample Ref	PIL0009I	No. of Samples	3	
Candle Name	430g, Square Pillar Candle, 3% in HPM			
Description	430g Mineral Blend Wax Fragranced Candle			
Fragrance	Enchanted Forest		W eight per candle	12.9g
W ax	HPM Wax		W eight per candle	417.1g
Colour	White	Height	215mm	
Wick Type	LX10	Width	47mm	
Wick Positioning	Centred	Depth	47mm	
Surface Defects	None			

### 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)



### 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: 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 <sub>m</sub> (h)	Hourly soot index Si <sub>h</sub>	Average soot index per hour Si <sub>h</sub>	Result
PIL0009I-1	8.00	0.16		
PIL00091-2	8.00	0.03	0.08	PASS
PIL0009I-3	8.00	0.06		





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### Part 2: SPECIFICATION FOR FIRE SAFETY

Test Property	Test Method	Test Requirements	Result
S tability	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	(Measurement) 75mm. The flame height for tea lights shall		PASS
	EN 15493:2019 4.5.1	not exceed 30mm After extinguishing the candle shall not	Maximum: 25 mm PASS
Behaviour after extinguishing	(Visual Check) EN 15493:2019 4.5.2 (Measurement)	spontaneously re-light The wick shall not continue to glow or smoke for an average time of more than	PASS
	,	30 s after extinguishing	Average: 4 s

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 W ax Consumed (g)	*Total Burning Time (h)	Wax Consumption Rate (g/h)
	PIL0009I-1	447.1	56.0	16.0	3.50
ſ	PIL00091-2	421.6	30.1	8.0	3.76
	PIL0009I-3	436.0	89.2	36.0	2.48

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

### Notes and Discussion:

l	Candles were burned to a residual height of 15-25mm.		
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## IMAGE GALLERY

# CANDLE SHACK

### IMAGE GALLERY







End of Burn Front - Sample 1

End of Burn Font - Sample

End of Burn Top - Sample 1

End of Burn Top - Sample 2

End of Burn Top - Sample 3

### **END OF REPORT**

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