



FRAG0461

# RECIPE - FLAT CYLINDER (47X220) PILLAR CANDLE FIRESIDE IN HPM



# CANDLE SHACK

## WHAT YOU WILL NEED

<a href="#">1x Flat Cylinder 47x220 - Pillar Candle Mould</a>
<a href="#">9g of Fireside Fragrance Oil</a>
<a href="#">291g of HPM Wax</a>
<a href="#">1x LX8 Wick (250mm)</a>
<a href="#">1x 2.5mm Diameter Metal Rod</a>
1x Blu Tack
1x Lolly Stick (this will become your rod centring tool)



## THE STEP-BY-STEP PROCESS

### STEP 1

Using a ratchet punch or similar tool, pierce a 2.5mm hole in the centre of your lolly stick to turn it into a rod centring tool.

### STEP 2

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

### STEP 3

Melt HPM wax at 75°C.

### STEP 4

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

### STEP 5

Slowly pour it into your mould to your desired height.

### STEP 6

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

### STEP 7

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 8

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 9

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

### STEP 10

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

### STEP 11

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

# CANDLE SHACK

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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: 31/10/23

Testing Period: 29/09/2023 - 31/10/2023

Sample Ref	PIL0009A	No. of Samples	3
Candle Name	300g Round, Tall Pillar Candle, 3% in HPM		
Description	300g Mineral Blend Wax Fragranced Candle		
Fragrance	Fireside	Weight per candle	9g
Wax	HPM Wax	Weight per candle	291g
Colour	White	Height	210mm
Wick Type	LX8	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)

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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: 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 $Si_h$	Average soot index per hour $Si_h$	Result
PIL0009A-1	8.00	0.12	0.06	PASS
PIL0009A-2	8.00	0.06		
PIL0009A-3	8.00	0.00		



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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: 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 Wax Consumed (g)	*Total Burning Time (h)	Wax Consumption Rate (g/h)
PIL0009A-1	315.1	69.1	24.0	2.88
PIL0009A-2	295.5	214.2	68.0	3.15
PIL0009A-3	296.9	240.9	72.0	3.35

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

### Notes and Discussion:

Candles were burned to a residual height of 15-25mm.

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## IMAGE GALLERY



Before Burn Front - Sample 1



Before Burn Front - Sample 2



Before Burn Front - Sample 3



End of Burn Front - Sample 1



End of Burn Front - Sample 2



End of Burn Front - Sample 3

## END OF REPORT

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