## TEST REPORT



Test requested and conclusion(s):

| No. | Standard and requirement | Conclusion(s) |
| :---: | :--- | :---: |
| 1 | BS EN 15426:2018 Candles-specification for sooting behavior | PASS |
| 2 | BS EN 15494:2019 Candles. Product safety labels | PASS |
| 3 | BS EN 15493:2019 Candles. Specification for fire safety | PASS |

Test result(s):
Soot release (BS EN 15426:2018)

| Test standard: | BS EN 15426:2018 Candles-specification for sooting behavior |
| :--- | :--- |
| Number of sample(s) tested: | 3 pieces of container candle |
| Initial observation: | No visible defects was found on all tested samples |
| Test requirement: | The average soot index from three tests (samples) shall be less than <br> $1.0 /$ hour. |


| Tested sample | A 1 | A 2 | A 3 |
| :--- | :---: | :---: | :---: |
| Original candle diameter $(\mathrm{mm})$ | $\varnothing 72.50$ | $\varnothing 72.56$ | $\varnothing 72.54$ |
| Original candle height $(\mathrm{mm})$ | 99.91 | 99.91 | 99.92 |
| Net candle weight $(\mathrm{g})$ | 245.1 | 244.4 | 247.9 |
| Total measuring time, $\mathrm{t}_{\mathrm{m}}($ hours $)$ | 12 | 12 | 12 |
| Soot index, Si | 0.19 | 0.58 | 0.67 |
| Average soot index per hour, $\mathrm{Si}_{\mathrm{h}}\left(={\left.\mathrm{Si} / \mathrm{t}_{\mathrm{m}}\right)} \quad 10.02\right.$ | 0.05 | 0.06 |  |
| Average soot inde from 3 samples |  | 0.04 |  |
| Note: acceptance criteria: $<1.0 /$ hour |  |  |  |

Test result(s): Candle Fire safety labelling (BS EN 15494:2019)

| Test standard: | BS EN 15494:2019 Candles-Product Safety Labels |
| :--- | :--- |
| Number of sample(s) tested: | One set product with full packaging |


| Claus <br> e | Requirement | Result | Rating |
| :--- | :--- | :--- | :--- |
|  | Layout of the product safety label <br> The product safety label for candles consists of the <br> following components: <br> general warning sign based upon ISO 7010-W001 <br> (see Figure 1) . <br> mandatory supplementary safety information <br> symbols or texts (see Tables 1 to 3). <br> optional supplementary safety information symbols <br> or texts (See Annex A) . <br> The supplementary safety information symbols or texts <br> shall be placed in close proximity to the general warning <br> sign below and/or to the right beside the general <br> warning sign (see Figure 2) . Borders are optional. <br> All components of the product safety label shall be in <br> distinct contrast from its background. For candle labels <br> made with one-colour printing, the background colour of <br> the general warning sign does not need to be yellow. | Safety information <br> beside the general <br> warning sign | PASS |


|  |  |  |
| :--- | :--- | :--- | :--- | | Figure 1 - General warning sign |
| :--- | :--- |

Test data:

| In the form of symbol |  | In the form of Text |  |
| :---: | :---: | :---: | :---: |
| Table 1- mandatory supplementary safety information | Finding |  |  |

Table 3 -additional mandatory supplementary safety information -specific for floating candles

| Table A.1 - optional supplementary safety information |  |  |  |
| :---: | :---: | :---: | :---: |
|  | Use in a suitable bowl filled with water | No Present |  |



|  | Never use liquid to extinguish. | Not Present |
| :---: | :---: | :---: |
|  | Remove packaging before use. | No Present |
|  | Trim edge if higher than xcm . <br> Note: $x$ represents the maximum length of the wick and is defined by the manufacturer. | Not Present |
| Table A. 2 - additional optional supplementary safety information - specific for tea light |  |  |
|  | Only use in holders and warning stoves with sufficient ventilation. | Not Present |
| Table A. 3 - additional optional supplementary safety information - specific for votive candles |  |  |
|  | This candle liquefies, use a suitable container. | Not Present |
| Table A. 4 - additional optional supplementary safety information - specific for container candles |  |  |
|  | Do not touch, may be hot. | Not Present |
| Table A. 5 - Additional optional supplementary safety information - specific for candles not appropriate to use in a warming unit, e.g. scented tea lights |  |  |
|  | Do not burn in a warming unit. | Not Present |

Test result(s): Burning safety (BS EN 15493:2019)

| Test standard: | BS EN 15493:2019 Candles. Specification for fire safety |
| :--- | :--- |
| Number of sample(s) tested: | 3 pieces of candle for testing |
| Instruction label | Provided |
| Burn test cycle | Burn candle 4 hours, pause for minimum 1 hour. <br> Continue to burn in cycles until self-extinguishing. |


| Clause | Requirement | Result |
| :---: | :--- | :---: |
| 4.1 | Stability <br> - Freestanding candles, container candles and candles that are sold <br> together with a holder or other accessories shall not tip over when <br> tested on a slope of $(10 \pm 0.2)^{\circ}$. | PASS |
| 4.2 | Secondary ignition <br> No secondary ignition shall occur for more than 10 s | PASS |
| 4.3 | Flame height <br> Maximum 75 mm for all candles except tea lights <br> Maximum 30 mm for tea lights | PASS |
| 4.4 | Self-extinguishing <br> To prevent the ignition of the surface underneath, freestanding candles <br> marketed as self-extinguishing shall self-extinguish at the end of the burning <br> time. The candles shall neither burn a paper placed underneath nor cause <br> any scorch marks on it during the whole burning test. <br> To prevent the ignition or cracking of a supporting holder, non- freestanding <br> candles marketed as self-extinguishing shall self- extinguish at a residual <br> height of $\geqslant 12$ mm in case of candles with a diameter of $\leqslant 14$ mm and at <br> a residual height of $\geqslant 18$ mm in case of other candles. | NA |
| 4.5 | Behaviour after extinguishing <br> After extinguishing the candle shall not spontaneously re-light. <br> The wick shall not continue to glow or smoke for an average time of more <br> than 30 s after extinguishing. | PASS |
| 4.6 | Container candles <br> The container shall not crack or break at any time throughout the burning <br> test. | PASS |

Abbreviation: NA =Not applicable

Test data:

| Sample ID | Wax weight (in net and g) | Size (mm) |
| :---: | :---: | :---: |
| A1 | 251.1 | $\Phi 88.88 \times 101.83$ |
| A2 | 249.3 | $\Phi 89.61 \times 101.65$ |
| A3 | 249.4 | $\Phi 89.40 \times 101.78$ |


| Sample ID | Flame height (mm) |  | Total burn time(hours) | Percentage of wax burnt (\%) | Wax spillage(\%) | Average after smoke or glow time <br> (s) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Maximum | Maximum |  |  |  |  |
| A1 | 20 | 50 | 49.3 | 98.9\% | -- | 11 |
| A2 | 20 | 40 | 49.7 | 99.5\% | -- | 10 |
| A3 | 20 | 50 | 47.2 | 99.5\% | -- | 8 |

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## Test Specimen Description:

## No.1: White candle(MO 6316)

## Sample photo:



