

NEW European Candle Standards

The European standards for safety of candles have reached the final stage for formal vote and are expected to become effective in 2008. These standards, which cover the fire safety, labeling requirement and safety of soot release, are listed below:

- EN 15493: Candles – Specification For Fire Safety
- EN 15494: Candles – Products Safety Labels And Warnings
- EN 15426: Candles – Specification for sooting behaviour

Since the aforementioned standards will soon become mandatory, it is highly recommended that indoor candle products fulfill the safety requirements in these standards in order to comply with the General Product Safety Directive (GPSD) – 2001/95/EC ¹. The GPSD is a framework directive to ensure that only safe products are placed on the market. The details about the requirements are specified as below.



EN 15493: Candles – Specification For Fire Safety

This standard mainly focuses on fire safety and intends to reduce the risks of fire hazards during the use of indoor candles by assessing their stability and burning behavior. The safety requirements covered are:

- **Stability**

No over-tipping on incline plane of 10°

- **Secondary Ignition**

No secondary ignition of more than 10s

- **Flame Height**

Tealight ≤ 30mm

Others ≤ 75mm

Flame Height



- **Behavior by self-extinguishing at the end of the burning process**

No breakage on the container after self-extinguished

- **Re-ignition after extinguishing**

Glow or smoke ≤ 20s and no spontaneous re-ignition after extinguishing.

EN 15494: Candles – Products Safety Labels And Warnings

This standard is aimed to improve personal safety during the use of candles by informing the user by means of adequate warnings. The requirements for safety labels of indoor candles are divided into 2 points.

- **Safety Information**

Safety label shall be:

- In the form of symbols or text
- Visible and legible on packaging or product (or instruction leaflets available at the point of sale)

- **Layout of a Product Safety Label**

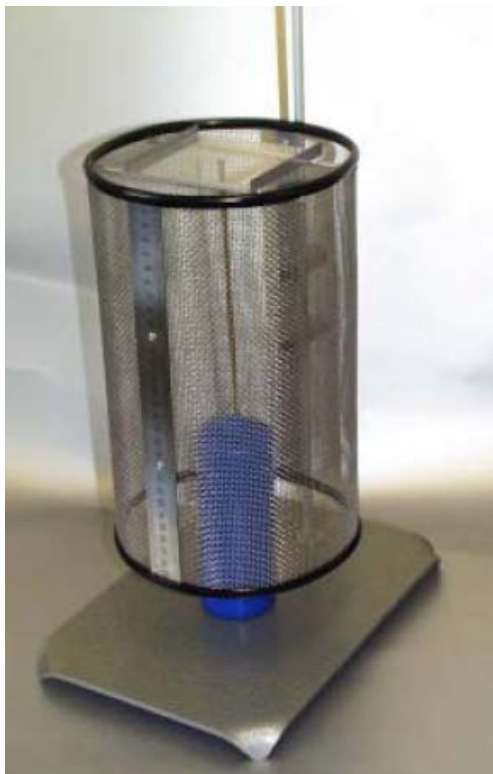
General Warning Sign (recommended in yellow background), and Supplementary safety information symbol

Example of Safety Label on Indoor Candles:



EN 15426: Candles – Specification For Sooting Behaviour

This standard aims to ensure the soot released from an indoor candle is maintained at a reasonable level by implementing requirements on their sooting behavior. This helps to ensure a reasonable degree of personal safety for normal use, thereby improving personal safety, e.g. Health.



Wire Mesh Cylinder

Candle products with a diameter up to 100mm, or an equivalent cross sectional area and using a single wick are covered by this standard. The sooting behavior is defined by soot index (S_i).

The requirements are:

- ⇒ Average S_i (Avg. of 3 test sample): $< 1.0/\text{hour}$
- ⇒ No individual sample shall exceed $2.0/\text{hour}$

Method of determining soot index:

A specific glass plate is intended to “collect” soot from candles during burning for a specific period of time inside a wire mesh cylinder. The soot index is then determined by the relationship of the illuminance between a sooted glass plate and a clean glass plate. Finally, the average soot index per hour can be determined by using the known burning period of time of the candle.

Throughout their global network of laboratories, SGS can provide a wide range of tests on candles according to European and American standards. Please contact us for additional information.

Please also read SafeGuards 100/07 [ASTM F 2058-07 – Standard specification for candle fire safety labeling updated](#)

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