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Standard Guide for Terminology Relating to Candles and Associated Accessory Items¹

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1. Scope

1.1 This guide defines standard terms used to describe candles and associated accessory products.

1.2 The values stated in inch-pound units are to be regarded as standard. The values given in parentheses are for information only.

1.3 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

2. Referenced Documents

2.1 *ASTM Standards:*²

E136 Test Method for Assessing Combustibility of Materials Using a Vertical Tube Furnace at 750°C

F2058 Specification for Candle Fire Safety Labeling

F2326 Test Method for Collection and Analysis of Visible Emissions from Candles as They Burn

F2417 Specification for Fire Safety for Candles

F2601 Specification for Fire Safety for Candle Accessories

2.2 *NFPA Standard:*³

NFPA 909 Code for the Protection of Cultural Resources

3. Terminology

3.1 *Definitions of Terms Specific to This Standard:*

3.1.1 *altar candle, n*—candle that is constructed, packaged, and labeled as an altar candle.

¹ This guide is under the jurisdiction of ASTM Committee F15 on Consumer Products and is the direct responsibility of Subcommittee F15.45 on Candle Products.

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² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

³ Available from National Fire Protection Association (NFPA), 1 Batterymarch Park, Quincy, MA 02269-9101.

3.1.1.1 *Discussion*—The candle is used in a place of worship in close proximity to the altar during the religious service or ceremony.

3.1.2 *barrier technology, n*—a functional design element of a candle accessory that minimizes the risk of ignition of the combustible components of the candle accessory as a result of foreseeable misuse or failure of the candle. **F2417, F2601**

3.1.2.1 *Discussion*—Precautions should be taken in barrier technology designs to prevent ignition of combustible components. During intended use, the candle should not be capable of igniting combustible components from either heat transfer or direct flame impingement. Accessories should also be designed to prevent ignition of combustible components in reasonable and foreseeable situations such as in drafts or the candle falling over. Examples include a durable, noncombustible wall, or space absent of combustible objects.

3.1.3 *base material, n*—the intended fuel source for candle flame. **F2417**

3.1.4 *birthday candle, n*—candle or candle ensemble whose sole purpose is to be used on a birthday cake.

3.1.5 *burn cycle, n*—the length of time a candle burns from when it is lit to when it is manually extinguished or from when it is lit until it extinguishes on its own at end of useful life.

F2326, F2417, F2601

3.1.5.1 *Discussion*—Burn cycles for tealight candles are until end of useful life; burn cycles for gel-containing candles are 8 h; burn cycles for extended use candles are as labeled or intended; and burn cycles for all other candles are 4 h.

3.1.6 *burn period, n*—total time the candle is burned over the duration of the test. **F2326**

3.1.7 *burn time, n*—the time a material supports sustained flaming combustion after removal of the ignition source until all flaming ceases. **F2417, F2601**

3.1.8 *candle, n*—one or more combustible wicks supported by a material that constitutes a fuel which is solid, semi-solid, or quasi-rigid at room temperature, 68 to 80°F (20 to 27°C); it can also contain additives that are used for color, scent, stability, or to modify the burning characteristics; the combined function of which is to sustain a light-producing flame.

3.1.9 *candle accessory, n*—object designed, intended, or marketed for use with a candle. **F2601**

3.1.10 *candle burner, n*—a candle holder that restricts the free flow of exiting combustion gases. **F2601**

3.1.10.1 *Discussion*—Candle burners include, but are not limited to, lanterns, potpourri burners, and food warmers. Does not include the item known as a “candle follower”, also referred to by the term “candle burner” in the liturgical industry.

3.1.11 *candle flashover, n*—the condition where the base material’s vapors ignite over the entire fuel pool. **F2417**

3.1.12 *candle holder, n*—candle accessory onto which a candle is placed. **F2601**

3.1.12.1 *Discussion*—It may support, hold, or contain a candle when in use.

3.1.12.2 *Discussion*—Filled candles are not candle holders.

3.1.13 *candle ring, n*—candle accessory intended to surround the candle with decorative materials in proximity to a candle, including, but not limited to, a continuous ring or loose fill material. **F2601**

3.1.14 *coating, n*—any material, other than wax based, which is used to cover at least a portion of the candle. **F2417**

3.1.14.1 *Discussion*—This material includes, but is not limited to, paint, glue, glitter, wood, plastic, or any other material that is not wax-based (which is generally considered an overdip).

3.1.14.2 *Discussion*—Excludes product labeling on bottom and any packaging meant to be removed prior to use.

3.1.15 *consumption rate, n*—rate at which a candle is consumed. **F2601**

3.1.15.1 *Discussion*—In this specification, consumption rate is measured in ounces (grams) of fuel consumed per hour.

3.1.15.2 *Discussion*—Consumption rate is determined by weighing a candle prior to burning and then again at the end of the life or burn cycle of the candle. The weight consumed in ounces (grams) is then divided by the burn time in hours to arrive at a consumption rate in ounces (grams) per hour.

3.1.16 *diffusion flame, n*—a type of flame where the fuel is not premixed with air or other oxygen source. **F2417, F2601**

3.1.16.1 *Discussion*—Diffusion flames are typically red, yellow, or orange in color.

3.1.17 *Easter, Paschal, sacramental candle, n*—candle that is constructed, packaged, and labeled as an Easter, Paschal, or sacramental candle (or some combination of these names, for example, Easter/Paschal), generally 43.2 cm (17.0 in.) or more in length.

3.1.17.1 *Discussion*—The candle shall be displayed and burned in the place of worship as the focal candle during Easter or with the celebration of various sacraments. The candle is adorned with symbols and ornamentation as required and deemed appropriate.

3.1.18 *end of useful life, n*—when the candle ceases to support combustion and the candle flame(s) goes(go) out on its own, as designed, and cannot be re-lit. **F2417**

3.1.19 *ensemble, n*—a candle and items physically packaged together and intended for use with the candle for sale as one unit at the retail level. **F2417**

3.1.20 *extended use candles, n*—a candle that is intended for home use to be burned continuously for longer than 4 h, excluding tealight candles. **F2417**

3.1.20.1 *Discussion*—Examples of extended use candles include religious candles, available to consumers, intended to be burned continuously for 24 h or multiple days.

3.1.21 *filled candle, n*—a candle produced and used within the same container or vessel. **F2417, F2058**

3.1.22 *fire safety warning, n*—precautionary information on the label, consisting of the safety alert symbol, the signal word (if present), the fire safety warning statement(s) and pictograms (if present) required by this standard to appear on the unit of sale. **F2058**

3.1.23 *fire safety warning statement(s), n*—specific warning message(s) required by this standard. **F2058**

3.1.24 *flame height, n*—the length of the candle flame from the base to the tip. **F2417, F2601**

3.1.25 *flame impingement, n*—the situation where the flame makes contact with a surface. **F2417**

3.1.25.1 *Discussion*—Within this standard, the concern is when a freestanding candle flame impinges on the supporting surface at the end of useful life.

3.1.26 *food warmer, n*—a vessel intended to hold food that is heated by one or more candles; it is a type of candle burner. **F2601**

3.1.27 *freestanding candle, n*—a rigid candle that is intended to be burned outside a container and does not require a holder to keep it upright, excluding votive candles. **F2417, F2058**

3.1.27.1 *Discussion*—Examples of freestanding candles include pillar-shaped, column-shaped, and figurine candles.

3.1.28 *fuel pool, n*—pool of molten base material. **F2417**

3.1.29 *fuel pool establishment period, n*—time, 15 min or longer, before each burn cycle that a candle must be burned to establish a normal fuel pool and stable flame. **F2326**

3.1.30 *gel-containing candle, n*—a candle where the primary fuel is a liquid, such as mineral oil, terpene type chemicals, or modified hydrocarbons that are not mineral oil based, which may or may not contain organic functional groups; it also contains a chemical agent to increase the viscosity (thicken) to a point where the candle has a quasi-rigid property. **F2417**

3.1.31 *ignition, n*—initiation of flaming combustion. **F2601**

3.1.31.1 *Discussion*—The combustion is typically evidenced by glow or flame. The combustion may be sustained or transient.

3.1.32 *label, n*—display of textual or graphic matter on the unit of sale. **F2058**

3.1.33 *molten fuel pool, n*—portion of the wax or fuel pool of a candle that is in the liquid form when the candle is burning. **F2326**

3.1.34 *noncombustible, adj*—not capable of igniting and burning when subjected to a fire under specified conditions. **F2417, F2601**