



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.

2. Referenced Documents

2.1 ASTM Standards:²

E136 Test Method for Behavior of Materials in 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 *base material, n*—intended fuel source for candle flame. **F2417**

3.1.2 *burn cycle, n*—the length of time from when the candle is lit to when the candle is manually extinguished (typically 4 hours). **F2326**

3.1.3 *burn period, n*—the total length of time a candle is burned to complete the specified test. **F2326**

3.1.4 *burn time, n*—time interval a test specimen supports sustained flaming combustion after removal of the ignition source until all flaming ceases. **F2601**

3.1.5 *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.

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

(1) *Discussion*—The candle is used in a place of worship in close proximity to the altar during the religious service or ceremony. **F2417**

3.1.5.2 *birthday candle, n*—candle or candle ensemble whose sole purpose is to be used on a birthday cake. **F2417**

3.1.5.3 *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.

(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. **F2417**

3.1.5.4 *filled candle, n*—a candle produced and used within the same vessel. **F2058**

3.1.5.5 *freestanding candle, n*—a rigid candle (for example, pillar-shaped, column-shaped, or figurine) that is intended to be burned only on a heat-resistant, noncombustible surface or on a heat-resistant, noncombustible candle accessory.

3.1.5.6 *non-freestanding birthday candle, n*—any candle or candle ensemble that does not include pyrotechnics and is designed and marketed for use with birthday cakes and does not comply with the stability requirements in Section 4.4 of **F2417**, Safety Requirements for Stability. **F2417**

3.1.5.7 *taper candle, n*—a slender candle produced to be used with a candle accessory for support.

3.1.5.8 *tealight candle, n*—a cylindrical filled candle produced with a diameter and height of approximately 1.5 in. (38 mm) and 0.75 in. (19 mm) respectively

3.1.5.9 *votive candle, n*—a candle produced for use fully within a candle accessory, specifically, a votive holder.

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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.

3.1.6 *candle accessory*, *n*—object designed for use with a candle. **F2601**

3.1.6.1 *votive holder*, *n*—a small open vessel designed to hold a votive candle during use; the votive holder must be capable of containing the entire volume of the melted votive candle.

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

3.1.7.1 *Discussion*—Does not include the item known as a “candle follower” also referred to by the term “candle burner” in the liturgical industry. Candle burners also include, but are not limited to, lanterns, potpourri burners, and food warmers. **F2601**

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

3.1.9 *candle holder*, *n*—candle accessory onto which a candle is placed. It may support, hold or contain a candle when in use.

3.1.9.1 *Discussion*—Filled candles are not candle holders. **F2601**

3.1.10 *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**

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

3.1.11.1 *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).

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

3.1.12 *consumption rate*, *n*—rate at which a candle is consumed measured in grams of fuel consumed per hour.

3.1.12.1 *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 grams is then divided by the burn time in hours to arrive at a consumption rate in grams per hour. **F2601**

3.1.13 *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**

3.1.14 *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**

3.1.15 *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**

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

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

3.1.18 *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**

3.1.19 *gel type 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.

3.1.20 *ignition*, *n*—initiation of combustion.

3.1.20.1 *Discussion*—The combustion is typically evidenced by glow or flame. The combustion may be sustained or transient. **F2601**

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

3.1.22 *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**

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

3.1.23.1 *Discussion*—Materials that are reported as passing Test Method **E136** are considered noncombustible. **F2417**, **F2601**

3.1.24 *optical densitometer*, *n*—instrument used for determining the optical density in the transmittance or reflectance mode. **F2326**

3.1.25 *packaging*, *n*—external container, such as a box, case, bag or sleeve in which a candle(s) is sold. Packaging does not include the vessel of a filled candle. **F2058**

3.1.26 *paint*, *n*—a pigmented material which is generally applied to the outside surface of the candle, primarily used to decorate the candle. **F2417**

3.1.27 *pictogram*, *n*—graphic symbol intended to convey a message without the use of words. **F2058**

3.1.28 *place of worship*, *n*—any building that functions primarily as a group meeting place for the practice of religion (see NFPA 909).

3.1.28.1 *Discussion*—This includes, but is not limited to, churches, synagogues, cathedrals, temples, and meeting halls. **F2417**

3.1.29 *potpourri burner*, *n*—candle burner designed to provide a source of heat to warm a reservoir of extraneous material. **F2601**

3.1.30 *product display space*, *n*—the area of the panel seen by the retail customer on which the warning label is displayed when looking at the top, bottom, or sides of the unit of sale.

3.1.31 *safety alert symbol*, *n*—graphic symbol consisting of an exclamation point inside of an equilateral triangle with the point of the triangle oriented upward. **F2058**

3.1.32 *secondary ignition*, *n*—self-sustained flame other than that on the intended wick(s) that occurs during candle use, including candle flashover. **F2417**

3.1.33 *self-sustained flame*, *n*—flame that continues to burn until the fuel source is removed or depleted or requires manual extinguishing. **F2417**

3.1.34 *shade*, *n*—a candle accessory placed above the candle, whose function is to modify light from the flame and change the appearance of the candle.

3.1.35 *signal word, n*—the word WARNING as it appears in the fire safety warning. **F2058**

3.1.36 *sustained flaming, n*—existence of flame on or over the surface of the specimen for periods of 4 s or more.

3.1.36.1 *Discussion*—Sustained flaming starts at the beginning of the period when a flame is found on or over the surface. **F2601**

3.1.37 *top of the candle, n*—the upper most part of the candle or container. **F2326**

3.1.38 *topper, n*—vented candle accessory, which is placed directly on top of a container candle, to modify airflow.

3.1.39 *unit of sale, n*—the candle or candle and its container or package as purchased by the consumer. **F2058**

3.1.40 *visible emissions, n*—emissions that can be seen once collected on a substrate. **F2326**

3.1.41 *warning panel, n*—entire surface of the panel on which the fire safety warning appears on the unit of sale. **F2058**

3.1.42 *wax, n*—a crystalline, plastic solid or semi-solid material at 77°F (25°C), consisting of a mixture of hydrocarbons or hydrocarbon derivatives, or both, that typically at temperatures equal to or greater than 104°F (40°C), melts and becomes a low viscosity liquid. Waxes may be of mineral (particularly petroleum), vegetable, animal (including insect), or synthetic origin.

3.1.43 *wax candle, n*—a candle for which the primary fuel is wax.

3.1.44 *wick, n*—an object that delivers fuel to a flame through the process of capillary action.

4. Significance and Use

4.1 This guide is used to establish a set of definitions that allows manufacturers, consumers, retailers, and the scientific community to use a common language to define candles and associated accessory items.

5. Keywords

5.1 candle; flame; wick

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