



Standard Specification for Fire Safety for Candles¹

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1. Scope

1.1 This specification is intended to prescribe minimum safety requirements for candles to provide a reasonable degree of safety for normal use with candles, thereby improving personal safety and reducing fires, deaths, and injuries.

1.2 This specification is not intended to replace other important safety practices that should be in place, such as adult supervision, close monitoring, fire detection, alarm or suppression systems, and use of candles away from combustible materials.

1.3 Flame-producing devices, such as candles, present a potential hazard to the user. This specification cannot eliminate all hazards, but will minimize the potential hazards of candles to the user.

1.4 *This specification is used to measure and describe the response of materials, products, or assemblies to heat and flame under controlled conditions, but does not by itself incorporate all factors required for fire hazard or fire risk assessment of the materials, products, or assemblies under actual fire conditions.*

1.5 *This standard is used to predict or provide a quantitative measure of the fire hazard from a specified set of fire conditions involving specific materials, products, or assemblies. This assessment does not necessarily predict the hazard of actual fires which involve conditions other than those assumed in the analysis.*

1.6 *Fire testing is inherently hazardous. Adequate safeguards for personnel and property shall be employed in conducting these tests.*

1.7 This specification states values in SI units which are to be regarded as the standard. The values given in parenthesis are for information only.

1.8 *This specification does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate*

safety and health practices and determine the applicability of regulatory requirements prior to use.

2. Referenced Documents

2.1 *ASTM Standards:*²

D92 Test Method for Flash and Fire Points by Cleveland Open Cup Tester

D93 Test Methods for Flash Point by Pensky-Martens Closed Cup Tester

E136 Test Method for Behavior of Materials in a Vertical Tube Furnace at 750°C

E176 Terminology of Fire Standards

F400 Consumer Safety Specification for Lighters

F1972 Guide for Terminology Relating to Candles and Associated Accessory Items

2.2 *NFPA Standard:*³

NFPA 909 Code for the Protection of Cultural Resources

3. Terminology

3.1 Certain candle-related terminology is addressed in Guide **F1972**, and the reader is directed to that guide for definitions not found in **3.2**. For definitions of terms associated with fire issues, see Terminology **E176**.

3.2 *Definitions:*

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

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

3.2.2 *base material, n*—intended fuel source for candle flame.

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

3.2.4 *candle flashover, n*—condition where the base material's vapors ignite over the entire fuel pool.

¹ This specification 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.