



Designation: F2179 – 20

# Standard Specification for Annealed Soda-Lime-Silicate Glass Containers That Are Produced for Use as Candle Containers<sup>1</sup>

This standard is issued under the fixed designation F2179; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon ( $\epsilon$ ) indicates an editorial change since the last revision or reapproval.

## 1. Scope

1.1 This specification is specifically for soda-lime-silicate glass containers that are intended to be used as filled candle containers. This specification does not apply to other glass accessories used for candles, such as votive holders, hurricanes, and glass holders used with free-standing candles. The glass manufacturer or glass secondary processor is responsible for the compliance of the product and maintaining documentation of test results during the manufacturing process.

1.2 The values stated in SI units are to be regarded as standard. The values given in parentheses after SI units are provided for information only and are not considered standard.

1.3 *This standard 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, health, and environmental practices and determine the applicability of regulatory limitations prior to use.*

1.4 *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 Reference to these documents shall be the latest revision, unless otherwise specified by the authority applying this specification.

2.2 *ASTM Standards:*<sup>2</sup>

**C148 Test Methods for Polariscopic Examination of Glass Containers**

<sup>1</sup> 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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<sup>2</sup> 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.

**C149 Test Method for Thermal Shock Resistance of Glass Containers**

**C162 Terminology of Glass and Glass Products**

**C224 Practice for Sampling Glass Containers**

**F1972 Guide for Terminology Relating to Candles and Associated Accessory Items**

## 3. Terminology

3.1 For definitions of glass and glass products terms used in this specification, refer to Terminology **C162**.

3.2 For definitions of candle related terms used in this specification, refer to Guide **F1972**.

3.3 *Definitions of Terms Specific to This Standard:*

3.3.1 *candle container, n*—an open vessel used for a filled candle.

3.3.2 *glass manufacturer, n*—the entity that produces glass.

3.3.3 *glass secondary processor, n*—an entity that may alter the structural integrity of the glass.

3.3.4 *inside knuckle, n*—glass candle container's inside bottom sidewall radius.

## 4. Performance Requirements

4.1 *Annealing:*

4.1.1 *Transparent Glass*—Containers examined under polarized light in accordance with Test Methods **C148** shall, after annealing, show no greater than real temper number 4. The Scratch Test (Section 5) can be used as an alternative to Test Methods **C148**. Containers tested in accordance with the Scratch Test shall show no fractures.

4.1.2 *Non-transparent Glass*—If glass condition (color, decoration, etc.) prohibits sufficient light transmission for use of Test Methods **C148**, annealing shall be qualified through the use of the Scratch Test (Section 5). Containers tested in accordance with the Scratch Test shall show no fractures.

4.2 *Thermal Shock:*

4.2.1 Containers shall be sampled in accordance with Practice **C224**.

4.2.2 Containers shall not crack or break when tested, with the water retained in the container from the first immersion through the second immersion, at a thermal shock temperature