



Standard Specification for Laminated Architectural Flat Glass¹

This standard is issued under the fixed designation C1172; 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 (ε) indicates an editorial change since the last revision or reapproval.

1. Scope*

1.1 This specification covers the quality requirements of flat laminated glass consisting of two or more lites of glass bonded with an interlayer material for use in building and related applications.

1.2 Depending on the number, thickness, and treatment of lites, and the number and thickness of interlayers, the glass shall be laminated for applications including, but not limited to, safety, security, detention, hurricane/cyclic-wind resistance, blast resistance, bullet resistance, sound reduction, and decorative glazing.

1.3 Optical distortion and the evaluation thereof are not currently within the scope of the standard. Mockups are recommended as a method to evaluate glass. (See [Appendix X1](#).)

1.4 The dimensional values, except thickness designations, stated in inch-pound units are to be regarded as the standard. The values in parentheses are for information only.

1.5 The following safety hazards caveat pertains only to the test method portion, Section 7, of this specification: *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 and health practices and determine the applicability of regulatory limitations prior to use.*

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:²

[C162 Terminology of Glass and Glass Products](#)

¹ This specification is under the jurisdiction of ASTM Committee C14 on Glass and Glass Products and is the direct responsibility of Subcommittee C14.08 on Flat Glass.

Current edition approved Sept. 15, 2014. Published October 2014. Originally approved 1991. Last previous edition approved 2009 as C1172 – 09^{ε1}. DOI: 10.1520/C1172-14.

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.

[C1036 Specification for Flat Glass](#)

[C1048 Specification for Heat-Strengthened and Fully Tempered Flat Glass](#)

[C1376 Specification for Pyrolytic and Vacuum Deposition Coatings on Flat Glass](#)

[C1422 Specification for Chemically Strengthened Flat Glass](#)

[C1503 Specification for Silvered Flat Glass Mirror](#)

[E308 Practice for Computing the Colors of Objects by Using the CIE System](#)

[E413 Classification for Rating Sound Insulation](#)

[E903 Test Method for Solar Absorptance, Reflectance, and Transmittance of Materials Using Integrating Spheres](#)

[E1332 Classification for Rating Outdoor-Indoor Sound Attenuation](#)

[E1886 Test Method for Performance of Exterior Windows, Curtain Walls, Doors, and Impact Protective Systems Impacted by Missile\(s\) and Exposed to Cyclic Pressure Differentials](#)

[E1996 Specification for Performance of Exterior Windows, Curtain Walls, Doors, and Impact Protective Systems Impacted by Windborne Debris in Hurricanes](#)

[E2395 Specification for Voluntary Security Performance of Window and Door Assemblies with and without Glazing Impact](#)

[F1233 Test Method for Security Glazing Materials And Systems](#)

[F1642 Test Method for Glazing and Glazing Systems Subject to Airblast Loadings](#)

[F1915 Test Methods for Glazing for Detention Facilities](#)

[F3006 Specification for Ball Drop Impact Resistance of Laminated Architectural Flat Glazing](#)

[F3007 Test Method for Ball Drop Impact Resistance of Laminated Architectural Flat Glass](#)

2.3 ANSI Standard:

[Z97.1 Safety Glazing Materials Used in Buildings—Safety Performance Specifications and Methods of Tests³](#)

2.4 Federal Document:⁴

[CPSC 16CFR1201 Consumer Product Safety Commission Safety Standard for Architectural Glazing Materials](#)

³ Available from American National Standards Institute (ANSI), 25 W. 43rd St., 4th Floor, New York, NY 10036, <http://www.ansi.org>.

⁴ Available from U.S. Consumer Product Safety Commission (CPSC), 4330 East West Hwy., Bethesda, MD 20814, <http://www.cpsc.gov>.

*A Summary of Changes section appears at the end of this standard