



# Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference<sup>1</sup>

This standard is issued under the fixed designation E330/E330M; 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.

*This standard has been approved for use by agencies of the U.S. Department of Defense.*

## 1. Scope

1.1 This test method describes the determination of the structural performance of exterior windows, doors, skylights, and curtain walls under uniform static air pressure differences, using a test chamber. This test method is applicable to curtain wall assemblies including, but not limited to, metal, glass, masonry, and stone components.<sup>2</sup>

1.2 This test method is intended only for evaluating the structural performance associated with the specified test specimen and not the structural performance of adjacent construction.

1.3 The proper use of this test method requires a knowledge of the principles of pressure and deflection measurement.

1.4 This test method describes the apparatus and the procedure to be used for applying uniformly distributed test loads to a specimen.

1.4.1 Procedure A (see 11.2) shall be used when a load-deflection curve is not required.

1.4.2 Procedure B (see 11.3) shall be used when a load-deflection curve is required.

1.5 The text of this standard references notes and footnotes which provide explanatory materials. These notes and footnotes (excluding those in tables and figures) shall not be considered as requirements of the standard.

1.6 The values stated in either SI units or inch-pound units are to be regarded separately as standard. The values stated in each system may not be exact equivalents; therefore, each system shall be used independently of the other. Combining values from the two systems may result in non-conformance with the standard.

<sup>1</sup> This test method is under the jurisdiction of ASTM Committee E06 on Performance of Buildings and is the direct responsibility of Subcommittee E06.51 on Performance of Windows, Doors, Skylights and Curtain Walls.

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<sup>2</sup> Additional information on curtain wall assemblies can be obtained from the American Architectural Manufacturers Association (AAMA), 1827 Walden Office Square, Suite 550, Schaumburg, IL 60173-4268, <http://www.aamanet.org>.

1.7 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. For specific hazard statements, see Section 7.

## 2. Referenced Documents

### 2.1 ASTM Standards:<sup>3</sup>

E631 Terminology of Building Constructions

E997 Test Method for Structural Performance of Glass in Exterior Windows, Curtain Walls, and Doors Under the Influence of Uniform Static Loads by Destructive Methods

E998 Test Method for Structural Performance of Glass in Windows, Curtain Walls, and Doors Under the Influence of Uniform Static Loads by Nondestructive Method

E1233/E1233M Test Method for Structural Performance of Exterior Windows, Doors, Skylights, and Curtain Walls by Cyclic Air Pressure Differential

E1300 Practice for Determining Load Resistance of Glass in Buildings

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

### 2.2 ASCE/SEI Standard:<sup>4</sup>

ASCE/SEI 7 Minimum Design Loads for Buildings and Other Structures

<sup>3</sup> For referenced ASTM standards, visit the ASTM website, [www.astm.org](http://www.astm.org), or contact ASTM Customer Service at [service@astm.org](mailto:service@astm.org). For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

<sup>4</sup> Available from American Society of Civil Engineers (ASCE), 1801 Alexander Bell Dr., Reston, VA 20191, <http://www.asce.org>.