

Standard Test Methods for Measuring the Forced Entry Resistance of Window Assemblies, Excluding Glazing Impact¹

This standard is issued under the fixed designation F 588; 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 These test methods determine the ability of window assemblies of various types to restrain, delay, or frustrate forced entry.

1.2 For purposes of these test methods, window assemblies are defined as described in 1.2.1-1.2.4 and as shown in Fig. 1. Window assemblies with a combination of operable sash and fixed panes (lites) shall be classified and tested separately for each type.

1.2.1 *Type A*—A window assembly which incorporates one or more sash that open by *sliding*, either vertically or horizontally within the plane of the wall.

1.2.2 *Type B*—A window assembly which incorporates one or more sash that are *hinged* at or near two corners of the sash and that open toward the exterior (outswinging) or toward the interior (inswinging).

1.2.3 *Type C*—A window assembly which incorporates one or more sash that are *pivoted* so that part of the sash opens toward the interior and part of it opens toward the exterior.

1.2.4 *Type D*—A window assembly which incorporates one or more *fixed* panes (lites) or stationary sash that are designed not to open.

NOTE 1—See Fig. 1 for graphic depiction of window assembly types.

1.3 The values stated in SI units are to be regarded as the standard. The values given in parentheses are for information only.

1.4 *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 requirements prior to use.*

2. Referenced Documents

2.1 *ASTM Standards*:²

E 631 Terminology of Building Constructions

F 1233 Test Method for Security Glazing Materials and Systems

2.2 *AAMA Standard*:³

AAMA 1302.5-76 Voluntary Specifications for Forced Entry Resistant Aluminum Prime Windows

2.3 *CAWM Standards*:³

CAWM 301-90 Forced Entry Resistance Tests for Windows

CMBSO 1-79 California Model Building Security Ordinance

3. Terminology

3.1 *Definitions*—Definitions for standard terminology can be found in Terminology E 631.

3.2 *Definitions of Terms Specific to This Standard*:

3.2.1 *locking device(s) (lock), n*—one or more components of a window assembly intended to resist the opening of movable sash from the exterior.

3.2.2 *sash operator, n*—a component of the window assembly that is used to move, pivot, or adjust the position of a movable sash within the window frame. (The sash operator in some window assemblies is also a locking device.)

4. Summary of Test Method

4.1 The procedure consists of mounting a specimen into a test assembly fixture which in turn is mounted to a wall support fixture, and, after removing all exterior fasteners and loose component items, specified loads and forces are applied to the window test specimen in a prescribed sequence. Following

¹ These test methods are under the jurisdiction of ASTM Committee E06 on Performance of Buildings and are the direct responsibility of Subcommittee E06.51 on Performance of Windows, Doors, Skylights, and Curtain Walls.

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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 the American Architectural Manufacturers Association (AAMA), 1827 Walden Office Square, Suite 550, Schaumburg IL, 60173.

