



Designation: F842 – 17 (Reapproved 2023)

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

This standard is issued under the fixed designation F842; 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.

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

1. Scope

1.1 These test methods determine the ability of sliding door assemblies to restrain, delay, or frustrate forced entry.

1.2 For purposes of these test methods, sliding door assemblies are defined as described in 1.2.1 – 1.2.4 and as shown in Fig. 1. Sliding door assemblies with a combination of operable panels and fixed panels (lites) shall be classified and tested separately for each type.

1.2.1 *Type A*—A sliding door assembly which incorporates one or more sliding panels that *lock to the jamb*.

1.2.2 *Type B*—A sliding door assembly which incorporates one or more sliding panels that *lock to an intermediate jamb*.

1.2.3 *Type C*—A sliding door assembly which incorporates one or more sliding panels that abut and *lock to other panels*.

1.2.4 *Type D*—A sliding door assembly which incorporates one or more fixed or stationary panels that are *designed not to open*.

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

1.3 The values stated in inch-pound units are to be regarded as standard. The values given in parentheses are mathematical conversions to SI units that are provided for information only and are not considered standard.

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

1.5 *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.*

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. Referenced Documents

2.1 *ASTM Standards*:²

E631 Terminology of Building Constructions

E699 Specification for Agencies Involved in Testing, Quality Assurance, and Evaluating of Manufactured Building Components

2.2 *AAMA Standard*:³

AAMA 1303.5 Voluntary Specifications for Forced Entry Resistant Aluminum Sliding Glass Doors

2.3 *CAWM Standards*:³

CAWM 300-96 Forced Entry Resistance Tests for Sliding Glass Doors

CMBSO 1-79 California Model Building Security Ordinance

3. Terminology

3.1 *Definitions*—Definitions for standard terminology can be found in Terminology E631.

3.2 *Definitions of Terms Specific to This Standard*:

3.2.1 *door frame assembly, n*—the combination of a head, sill, and jambs surrounding and supporting fixed and sliding panels.

3.2.2 *fixed jamb stile, n*—vertical members of fixed or stationary panels adjacent to any jamb.

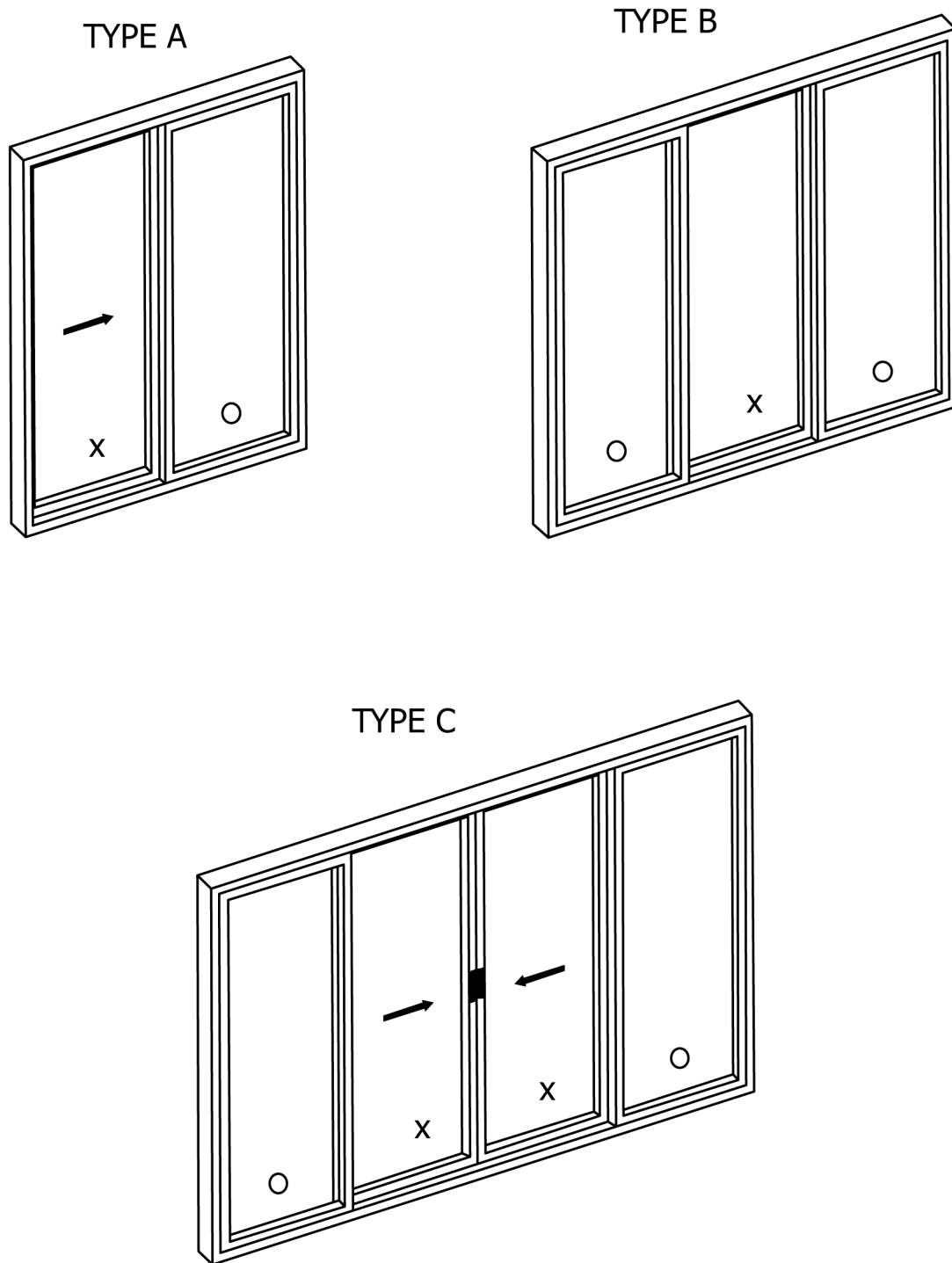
3.2.3 *intermediate jamb, n*—vertical member of a frame other than the outermost vertical members.

3.2.4 *locking device(s) (lock), n*—one or more components of a sliding door assembly intended to resist opening of the sliding door panel from the exterior.

3.2.5 *sliding door assembly, n*—a combination of one or more sliding door panels with or without one or more fixed panels within a common frame.

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 60173-4268, <http://www.aamanet.org>.



O - Non-operating Door Panel
X - Operating Door Panel

FIG. 1 Typical Horizontal Sliding Door Assembly Types (viewed from the exterior)

4. Summary of Test Method

4.1 The procedure consists of mounting a sliding door 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 sliding door test specimen in a