



Standard Test Method for Security Glazing Materials And Systems¹

This standard is issued under the fixed designation F 1233; 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 test method sets forth procedures whose purpose is limited to the evaluation of the resistance of security glazing materials and systems against the following threats:

- 1.1.1 *Ballistic Impact,*
- 1.1.2 *Blunt Tool Impacts,*
- 1.1.3 *Sharp Tool Impacts,*
- 1.1.4 *Thermal Stress, and*
- 1.1.5 *Chemical Deterioration.*

NOTE 1—Specifically exempted from this test method are the use of power (motor or engine-driven) tools or devices, explosives, military ordnance (excepting small arms) and tools, processes or devices requiring more than two persons to transport and operate.

1.2 The values stated in inch-pounds are to be regarded as the standard. The values given in parentheses are for information only.

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 and health practices and determine the applicability of regulatory limitations prior to use.* For a specific warning statement, see Warning in 9.1.1.6.

2. Referenced Documents

2.1 ASTM Standards:²

- A 36/A 36M Specification for Carbon Structural Steel
- A 53/A 53M Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless
- A 574 Specification for Alloy Steel Socket-Head Cap Screws
- F 1029 Guide for Selection of Physical Security Measures for a Facility

2.2 Other Documents:

Sporting Arms and Ammunition Manufacturer's Institute

(SAAMI)—Ammunition³

United States Military Ammunition Specifications—Ammunition⁴

Federal Specification GGG-313U—Cold Chisel⁵

American Iron and Steel Institute M-1020—Structural Steel⁶

UL 10BC—Fire Extinguisher⁷

3. Terminology

3.1 Definitions:

3.1.1 *test director*—the individual identified by the independent testing laboratory as being responsible to complete the specified tests as required and to document the results.

4. Summary of Test Method

4.1 Forced entry shall be determined by resistance of the glazing material or system to the following:

4.1.1 Ballistics attack only.

4.1.2 Physical attack only to include blunt tool impacts, sharp tool impacts, thermal stress, and chemical deterioration.

4.1.3 Ballistics attack followed by, and in combination with, physical attack.

5. Significance and Use

5.1 This test method is based on field experience rather than laboratory analysis. It provides a basis for the comparative evaluation of ballistic/forced entry/containment resistance of security glazings and systems and should not be used to establish or confirm the absolute prevention of forcible entries or forced exits. This test method defines three factors which determine the success or failure of any attempt to forcefully enter (or exit) the glazing or system. They are: (1) the tools employed, (2) the techniques and methods used by the attackers, and (3) the total time available to effect the entry or exit.

¹ This test method is under the jurisdiction of Committee F12 on Security Systems and Equipment and is the direct responsibility of Subcommittee F12.10 on Systems Products and Services.

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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 Sporting Arms and Ammunition Manufacturers' Association (SAAMI), Box 1075, Riverside, CT 06878.

⁴ Available from Standardization Documents Order Desk, DODSSP, Bldg. 4, Section D, 700 Robbins Ave., Philadelphia, PA 19111-5098

⁵ Available from General Services Adm., 7th and D Sts. SW, Washington, DC 20407.

⁶ Available from American Iron and Steel Institute (AISI), 1101 17th St., NW, Suite 1300, Washington, DC 20036.

⁷ Available from Underwriters Laboratories (UL), Corporate Progress, 333 Pfingsten Rd., Northbrook, IL 60062.