



Designation: F 1233 – 98

Standard Test Method for Security Glazing Materials And Systems¹

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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 Note 2.

2. Referenced Documents

2.1 ASTM Standards:

- A 36/A 36M Specification for Carbon Structural Steel²
- A 53 Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless³
- A 574 Specification for Alloy Steel Socket-Head Cap Screws⁴
- F 1029 Guide for Selection of Physical Security Measures for a Facility⁵

2.2 Other Documents:

Sporting Arms and Ammunition Manufacturer's Institute

(SAAMI)—Ammunition⁶

United States Military Ammunition Specifications—Ammunition⁷

Federal Specification GGG-313U—Cold Chisel⁸

American Iron and Steel Institute M-1020—Structural Steel⁹

UL 10BC—Fire Extinguisher¹⁰

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 F-12 on Security Systems and Equipment and is the direct responsibility of Subcommittee F12.10 on Systems, Products and Services.

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² *Annual Book of ASTM Standards*, Vol 01.04.

³ *Annual Book of ASTM Standards*, Vol 01.01.

⁴ *Annual Book of ASTM Standards*, Vol 15.08.

⁵ *Annual Book of ASTM Standards*, Vol 15.07.

⁶ Available from Sporting Arms and Ammunition Manufacturers' Association (SAAMI), Box 1075, Riverside, CT 06878.

⁷ Available from Standardization Documents Order Desk, Bldg. 4 Section D, 700 Robbins Ave., Philadelphia, PA 19111-5094, Attn: NPODS.

⁸ Available from General Services Adm., 7th and D Sts. SW, Washington, DC 20407.

⁹ Available from American Iron and Steel Institute, 1000 16th St. NW, Washington, DC 20036.

¹⁰ Available from Underwriters Laboratories, Inc., 333 Pfingsten Rd., Northbrook, IL 60062.