



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 ordinance (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 10.1.1.6.

2. Referenced Documents

2.1 ASTM Standards:²

- A36/A36M Specification for Carbon Structural Steel
- A53/A53M Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless
- A574 Specification for Alloy Steel Socket-Head Cap Screws
- F1029 Guide for Selection of Physical Security Measures for a Facility (Withdrawn 2004)³

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 The last approved version of this historical standard is referenced on www.astm.org.

2.2 Other Documents:

- Sporting Arms and Ammunition Manufacturer's Institute (SAAMI)—Ammunition⁴
- United States Military Ammunition Specifications—Ammunition⁵
- Federal Specification GGG-313U—Cold Chisel⁶
- American Iron and Steel Institute M-1020—Structural Steel⁷
- UL 10BC—Fire Extinguisher⁸

3. Terminology

3.1 Definitions:

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

4. Class

4.1 *Ballistic Class*—Ballistic tests and test results from this standard shall be classified by the following (see also Table 1):

4.1.1 *HG1 Handgun - Low*—Ammunition conforming to SAAMI specifications for caliber .38 Special, 158 grain (10.2 g), soft point, producing velocities of 875 (± 25) ft/s (266 (± 7) m/s) at 15 ft (4.5 m) from the muzzle.

4.1.2 *HG2 Handgun - Medium Soft Point*—Ammunition conforming to SAAMI specifications for caliber .357 Magnum, 158 grain (10.2 g), jacketed soft point, producing velocities of 1400 (± 50) ft/s (427 (± 15) m/s) at 15 ft (4.5 m) from the muzzle.

4.1.3 *HG3 Handgun - Medium Jacketed*—Ammunition conforming to SAAMI specifications for caliber 9 mm, 124 grain (8.0 g), full metal casing, producing velocities of 1250 (± 50) ft/s (381 (± 15) m/s) at 15 ft (4.5 m) from the muzzle.

4.1.4 *HG4 Handgun - High*—Ammunition conforming to SAAMI specifications for caliber .44 Magnum, 240 grain, lead gas check producing velocities of 1450 (± 50) ft/s (442 (± 15) m/s) at 15 ft (4.5 m) from the muzzle.

⁴ Available from Sporting Arms and Ammunition Manufacturers' Association (SAAMI), Box 1075, Riverside, CT 06878.

⁵ Available from Standardization Documents Order Desk, Bldg. 4, Section D, 700 Robbins Ave., Philadelphia, PA 19111-5094, Attn: NPODS.

⁶ Available from General Services Adm., 7th and D Sts. SW, Washington, DC 20407.

⁷ Available from American Iron and Steel Institute, 1000 16th St. NW, Washington, DC 20036.

⁸ Available from Underwriters Laboratories, Inc., 333 Pfingsten Rd., Northbrook, IL 60062.