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Standard Test Methods for Security of Swinging Door Assemblies[1]

This standard is issued under the fixed designation F 476; 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 Department of Defense.

1. Scope

1.1 These test methods cover door assemblies of various materials and types of construction for use in wall openings to deter unwanted intruders.

1.2 Door assemblies, covered by these test methods, also include individual components such as the hinge, lock, door, jamb/strike, and jamb/wall.

1.3 These test methods are designed to measure the capability of a swinging door assembly to restrain or delay and to frustrate the commission of "break-in" crimes.

1.4 These test methods apply primarily to typical entry door assemblies in single- and multi-family residential housing.

1.5 *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.*

2. Referenced Documents

2.1 *ASTM Standards:*

F 471 Terminology Relating to Combination Locks[2]

3. Terminology Definitions

3.1 *bolt*—a metal bar which, when actuated, is projected (or thrown) either horizontally or vertically into a retaining member, such as a strike plate, to impede a door from moving or opening.

3.2 *bolt projection (or bolt throw)*—the distance from the edge of the door, at the bolt center line, to the farthest point on the bolt in the projected position, when subjected to end pressure.

3.3 *component*—as distinguished from a part, a subassembly that combines with other components to make up a total door assembly. The prime components of a door assembly include: door, lock, hinges, jamb/wall, jamb/strike, and wall.

3.4 *cylinder*—the cylindrical subassembly of a lock, containing the cylinder core, tumbler mechanism, and the keyway. A double-cylinder lock is one which has a key-actuated cylinder on both the exterior and interior of the door.

3.5 *cylinder core (or cylinder plug)*—the central part of a cylinder, containing the keyway, which is rotated by the key to operate the lock mechanism.

3.6 *deadbolt*—a lock bolt that does not have a spring action as opposed to a latch bolt that does. The bolt must be actuated by a key or a knob, or both, or thumb turn, and when projected becomes locked against return by end pressure.

3.7 *dead latch (or dead locking latch bolt)*—a spring-actuated latch bolt having a beveled end and incorporating a plunger which, when depressed, automatically locks the projected latch bolt against return by end pressure.

3.8 *door assembly*—a unit composed of a group of parts or components that make up a closure for a passageway through a wall. For the purposes of these test methods, a door assembly consists of the following parts: door, hinges, locking device or devices, operation contacts (such as handles, knobs, push plates), miscellaneous hardware and closures, the frame, including the head and jambs plus the anchorage devices to the surrounding wall, and a portion of the surrounding wall extending 900 mm (36 in.) from each side of the jambs and 400 mm (16 in.) above the head.

3.9 *jamb*—the vertical members of a door frame (such as, those fixed members to which the door is secured).

3.10 *jamb/strike*—that component of a door assembly which receives and holds securely the extended lock bolt. The strike and jamb, used together, are considered a unit.

3.11 *jamb/wall*—that component of a door assembly to which a door is attached and secured. The wall and jamb, used together, are considered a unit.

3.12 *key-in-knob*—a lockset having the key cylinder and other lock mechanisms, such as a push or turn button, contained in the knobs.

3.13 *latch (or latch bolt)*—a beveled, spring-actuated bolt, that may or may not have a dead locking device.

3.14 *lock (or lockset)*—a keyed device (complete with cylinder, latch or dead bolt mechanism, and trim such as knobs, levers, thumb turns, escutcheons, etc.) for securing a door in a closed position against forced entry. For the purposes of this standard, a lock does not include the strike plate.

[1] This method is under the jurisdiction of ASTM Committee F12 on Security Systems and Equipmentand is the direct responsibility of Subcommittee F12.50 on Locking Devices.

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[2] *Annual Book of ASTM Standards,* Vol 15.08.

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