

ANSI/BHMA A156.44-2021



STANDARD

FOR

HARDWARE FOR ARCHITECTURAL GLASS OPENINGS



SPONSOR

BUILDERS HARDWARE MANUFACTURERS ASSOCIATION, INC.

AMERICAN NATIONAL STANDARDS INSTITUTE

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FOREWORD (This Foreword is not a part of ANSI/BHMA A156.44)

There is an opportunity for BHMA to provide further value to the construction industry with performance-based standards for products employed in both interior and exterior glazing applications. Architectural glass is being employed with higher frequency because it is both an environmentally friendly building material and it provides healthier space for occupants with better use of natural light and noise control. When employed as a decorative element in the construction of doors and walls, glass is desirable for its design versatility and durability. These points align with BHMA's mission towards sustainability & product stewardship.

This Standard further complements BHMA's scope to verify the performance of products that promote safety and security to meet the unique needs of the intended application. The performance characteristics of architectural glass are a function of many attributes, notably the weight-bearing capacity, the integrity of all connections especially to structural walls and the application of gaskets and adhesives. To compensate for the deflection of glass panels under loads and the ability to adjust for variations in the glass thickness, hardware manufacturers have incorporated innovative designs. Individual manufacturer's catalogs should be consulted for supplementary product information beyond the classification scheme within this Standard.

This Standard will assume confidence in the building codes relative to safety, and seek to differentiate products based on performance when properly panned. There are no restrictions on design except for those imposed for classification. As such, this Standard encourages the development of improved products, methods, and materials to meet these needs.

The BHMA recognizes that errors will be found, technology will become obsolete, and new products and production methods will be developed. With this in mind, the Association plans to update, correct, and revise these Standards regularly. It shall also be the responsibility of manufacturers to request such appropriate revisions.

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1. SCOPE

1.1 This Standard establishes performance requirements for exit device hardware used on swinging architectural glass doors and includes operational, cycle, strength and security tests.

1.2 Tests described in this Standard are performed under laboratory conditions. In actual usage, results vary because of installation, door and frame construction, maintenance, and environmental conditions.

1.3 Tests to evaluate decorative and protective finishes for these products are described in ANSI/BHMA A156.18 for Materials and Finishes, and are required to complete certification.

1.4 This standard serves as a supplement to related applicable BHMA standards and is meant to evaluate the product for the unique application of architectural glass openings. Acknowledging that products are commonly used in different applications, certifying to this standard may be in addition to other applicable BHMA standards.

2. DEFINITIONS

2.1 **Actuating Bar** The activating mechanism of an exit device is located on the egress side of a door. The active surface of the actuating bar shall be visually and physically distinct from the rest of the device and the length shall not be less than one-half the width of the door leaf. Refer to local codes for location and length. Also called cross bar or push pad.

2.2 **Deadlatch** A feature that prevents a latch from moving when end pressure is applied, but permits latch retraction when the actuating bar is depressed and/or when the active trim is used.

2.3 **Door Ram** As part of the test fixture defined in ASTM F476, it is a cylindrical weight within a pendulum system that is used to deliver horizontal impacts.

2.4 **Door Rail** A horizontal structural component that mounts to the top and/or bottom edges of a glass door panel. It is primarily used to provide mounting points for pivots and closers.

2.5 **Endload Pivot** A center-hung pivot comprised of two components; an adjustable end-load arm that installs in the bottom door rail and a bottom pivot that mounts directly to the floor. Commonly used with overhead concealed closers.

2.6 **Exit Device** A door latching assembly incorporating an actuating member usually called an actuating bar which releases the latching or locking mechanisms upon the application of force in the direction of exit travel.

2.7 **Header** The horizontal structural component that mounts above an entryway which serves as a mounting platform for the door stop, overhead closers, electric strikes, magnetic locks, and pivots. In some cases, it also serves to join with side lite glass panels and/or transom glass panels.

2.8 **Hinge/Pivot Edge** The side which is the pivot point for opening and closing the door. It is the point where the hinges attach the door to its frame.

2.9 **Latch** A device used to hold a door closed and requiring movement of an element before the door is released for opening.

2.10 **Latch Edge** The side of the door where the latch bolt engages with the mounted strike.

2.11 **Mating Pull** Post mounted trim used as the exterior trim to open a door by pulling on it. Commonly available in different lengths and orientations (vertical and/or horizontal) to complement the visual appearance of the mating exit device.