

Hardware Highlights



ANSI/BHMA A156.17-2010 American National Standard for Door Controls – Spring Hinges

Standard ANSI/BHMA A156.17-2010 establishes requirements for bored and preassembled locks and latches, and includes cycle tests, strength tests, operational tests, material evaluation tests, finish tests, and dimensional criteria. For further information, consult the full standard, ANSI/BHMA A156.17 for Door Controls – Spring Hinges.

BHMA has created this series of *Hardware Highlights* to provide useful, accessible information about builders hardware for anyone with an interest in devices that hang, control, secure, and trim the doors. BHMA is the trade association which represents almost all of the North American manufacturers of builders hardware. One of its main activities since 1983 has been the development and maintenance of ANSI-approved standards for 35 separate product categories.

Product Performance: Purchasers of door controls certified to A156.17 (<http://buildershardware.com/cpd>) can be assured products will perform to their expectations.

Below are an explanation and some examples of the evaluations conducted for certification:

CLOSING FORCE	DURABILITY	STRENGTH	APPEARANCE
In the standard, closing forces are given for seven different types of single acting hinges, eight different types of double acting hinges, and four different pivots. Sizes and weights of the doors are defined in accordance with the closing force of each test hinge.	Building products are expected to last a long time, and builders hardware is no exception. Grade 1 doors spring hinges, for example, must pass a rigorous test through one million cycles of opening and closing on a test door of a specified weight.	A static load test is performed to detect and limit the lateral shift of the door leaf away from the jamb at the top hinge following the application of a test load to ensure the spring hinges have adequate strength to withstand anticipated loads.	An additional duty of builders hardware is to be aesthetically attractive and stay that way. Resistance to corrosion is evaluated through a salt spray test to ASTM B117, providing confidence in the ongoing appearance of the architectural metals and coatings.

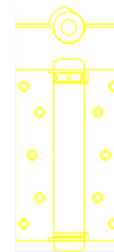
Building Codes Builders hardware provides several attributes that are essential to building safety and performance, including egress and fire protection. BHMA spring hinges are designed to comply with all applicable requirements. For example, spring hinges must meet the requirement for fire doors, as described in NFPA 80.

Sustainability Spring hinges contribute to building sustainability through their verified durability, as well as material characteristics such as recycled content and recyclability. The reliable closing and sealing of openings can also contribute to energy conservation. BHMA has developed Product Category Rules, which will further define sustainability requirements and guide life cycle assessments and environmental performance declarations.

Function Numbers: Another significant contribution of standards for product specification is a numbering system for lock function. Please consult A156.17 for the full list; an example is provided here:

K81011 K81011F K81012 K81013

Full Mortise. Single Acting. Torsion Spring. Hinge K81011F is for use on fire doors and shall be listed by a nationally recognized independent testing laboratory and be under an in-plant follow-up inspection service.



To purchase a copy of any BHMA Standard, go to www.buildershardware.com or call 800-699-9277.
This document is not a substitute for the full standard. Refer to the entire standard for full information.