

American National Standards Institute

ANSI standards could be described as the USA's equivalent to BS EN standards. They are administered and accredited by the American National Standards Institute from whom they take their name. Working together with the Builders' Hardware Manufacturers' Association ANSI has developed durability, strength and performance standards for almost every type of builders' hardware. In the same way the UK operates with BS and EN standards, products must be testified by a recognized test house before they can be listed on the Directory of Certified Products. These ANSI standards cover five major categories:

Door Controls | Hanging | Locking | Trimming | Power Assist

Each test has cycle, functional strength, security, dimension and finish performance requirements and many tests are performed on each product. They may include:

Tension Loading | Retraction Deadbolt | Bolt Strength | Impact/Force | Pound Exertion | Vertical Load Test
Deadbolt Torque | Warped Door | Security

Products receiving ANSI/BHMA certification are designated as Grade 3, Grade 2 or Grade 1 which offers specifiers a 'good, better, best' range of options when choosing hardware - with Grade 1 being the highest level of performance - for heavy duty applications.

One major difference between ANSI and EN standards is in the cycle testing. Cycle tests specify how many cycles a product can endure while still maintaining its performance. The result provides an understanding of longevity, performance under wear and tear, operational capacity and security. In general, ANSI standards specify a much higher number of cycles to be tested. Door closers, for example, must complete two million cycles to achieve Grade 1 accreditation, one million for grade 2 and half a million cycles for Grade 3 (which incidentally is the requirement in BS EN 1154 for door closers in the UK and European markets). Some manufacturers have developed products that not only meet but exceed Grade 1 standards. For example, LCN's 4040XP series closer has been independently tested to 10 million cycles - far exceeding the requirements ANSI cycle test standard of 2,000,000 operating cycles. One key difference between the LCN door closer (ANSI) and a BS EN certified door closer is the material used in manufacture. LCN door closers feature cast iron mechanisms and forged steel working components. Cast iron is not only strong, hard and reliable, it is compatible with high-grade steel components and is highly resistant to wear from millions of opening and closing cycles.

The ANSI standards which refer to doors closers are:

ANSI/BHMA A156.4-2013: Door Controls - Closers

ANSI/BHMA A156.8-2015: Door Controls - Overhead Stops and Holders

ANSI/BHMA A156.15-2015: Closer Holder, Electromagnetic and Electromechanical

BHMA A156.17-2004 (R2010): Self Closing Hinges and Pivots



At Relcross Door Controls we sell a comprehensive range of heavy duty ANSI grade hardware for specification in high traffic, high impact settings; including Prisons, Hospitals, Schools, Shopping Malls and other Public Buildings across the UK and Europe. A significant number of our ANSI products have been retested to BS EN standards in order to receive a UKCA/CE mark and be placed on the market in the UK and Europe. Occasionally ANSI approved products require a small tweak at most to meet the design requirements of the relevant BS EN test.

ANSI standards are reviewed periodically by ANSI and BHMA and in general change happens at a faster pace than with BS EN standards. Even so, market innovation often outstrips these reviews as technology, manufacturing expertise and materials improvements are phased in by manufacturers

As the principal distributor of ANSI standard hardware in the UK, Relcross Door Controls offers a free technical specification and advisory service to assist you in the correct choice of equipment. We keep substantial stocks of most products. Our team of trained specifiers will discuss problems, offer guidance, make recommendations and, most importantly, help on site if difficulties should occur.

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