

BS EN 12209 Locks & Latches

BS EN 12209 classifies mechanically operated locks, latches and locking plates using an 11 digit coding system.

Each digit refers to a particular feature of the product measured against the standards performance requirements.

Digit 1 – Category of use

Three grades are identified:

- Grade 1: low frequency of use with a high incentive to exercise care and a small chance of misuse, e.g. internal residential doors
- Grade 2: medium frequency of use by people with some incentive to exercise care but where there is some chance of misuse, e.g. internal office doors
- Grade 3: high frequency of use by public or others with little incentive to exercise care and with a high chance of misuse, e.g. public doors

Digit 2 – Durability

Twelve grades are identified with maximum figures for deadbolt and snib operation, and latch bolt operation with and without side load.

Digit 3 – Door mass and closing force

Nine grades are identified with maximum figures for closing force at various door masses. Note: Closing force is from a standing start: i.e. fully extended latch bolt in contact with striking plate at start of test.

Digit 4 – Fire resistance

Two grades are identified:

- Grade 0: not approved for use on fire/smoke door assemblies
- Grade 1: suitable for use on fire/smoke door assemblies tested to BS EN 1634-1 etc

Digit 5 – Safety (N/A)

Digit 6 – Corrosion resistance

Eight grades are identified neutral salt-spray with and without temperature resistance

Digit 7 – Security

Seven grades are identified with maximum figures relating to physical attack, with or without drilling.

Digit 8 – Field of door application

Fifteen grades are identified for differing applications - hinged or sliding doors with rim or mortice locks with either keyless egress from inside or key locking from both sides. The grading determines which application is appropriate. In addition, there is a requirement that lock/latch should not be removable from outside or, for grades K to R, from inside using "standard" tools. Grades H and P require support for the lock case when installed.

Digit 9 – Type of key operation and locking

Nine grades are identified for differing types of key operation. The grading determines how the lock is assessed for deadlocking. There is a maximum key torque operating requirement of 1.5Nm and a minimum key strength requirement of 2.5Nm.

Digit 10 – Type of spindle operation

Five grades are identified:

- Grade 0: lock without follower
- Grade 1: lock with sprung lever or knob
- Grade 2: lock with light unsprung lever
- Grade 3: lock with heavy unsprung lever
- Grade 4: lock with manufacturer's own specification furniture

Digit 11 – Key identification

Nine grades are identified relating to the number of differs and levers:

- Grade 0: no requirements
- Grade A: minimum 3 detaining elements
- Grade B: minimum 5 detaining elements
- Grade C: minimum 5 detaining elements, extended number of effective differs
- Grade D: minimum 6 detaining elements
- Grade E: minimum 6 detaining elements, extended number of effective differs