

# BS EN 12209 : 2016

## BS EN 12209 : 2016 Mechanically Operated Locks and Locking Plates

Products tested to British and European standards provide greater durability, longer warranty periods, peace of mind and evidence of professional specification.

BS EN 12209 Specifies the requirements and test methods for durability, strength, security, and function of mechanically operated locks and latches and their locking plates for use in doors in buildings, on fire and smoke compartmentation doors fitted with door closing devices, locked fire doors to maintain the fire integrity of the door assembly.

Under the standard each product is tested and classified accordingly to show its compliance. The identification of an 8-digit code is visible on the individual product. Each digit represents a category and how it measured against the standard to which it was tested.

**Please note:** This is a harmonised standard, when tested to 2003 version. The EN 12209 revision has now been published as a 2016 version. This version is not, however a harmonised version of the Standard. This means that locks can still be tested to the 2016 version but harmonisation will still be on the previous version of the standard (2003). A justification for the threshold values in 2016 version has been submitted to the Commission but has not been accepted and will need to be revised before the newest version of BS EN 12209 can be harmonised.

### Digit 1 - Category of use

Three grades are identified in accordance with the requirements:

**Grade 1:** for use by people with a high incentive to exercise care and with a small chance of misuse, e.g. residential doors.

**Grade 2:** for use by people with some incentive to exercise care but where there is some chance of misuse, e.g. office doors.

**Grade 3:** for use by the public where there is little incentive to exercise care and where there is a high chance of misuse, e.g. doors in public buildings.

### Digit 2 - Durability

Nine grades of durability and load on latch bolt are identified.

**Grade A:** 50 000 test cycles; no force on latch bolt or for locks without latchbolt

**Grade B:** 100 000 test cycles; no force on latch bolt or for locks without latchbolt

**Grade C:** 200 000 test cycles; no force on latch bolt or for locks without latchbolt

**Grade L:** 100 000 test cycles; 25 N load on latch bolt

**Grade M:** 200 000 test cycles; 25N load on latch bolt

**Grade R:** 100 000 test cycles; 50 N load on latch bolt

**Grade S:** 200 000 test cycles; 50 N load on latch bolt

**Grade W:** 100 000 test cycles; 120 N load on latch bolt

**Grade X:** 200 000 test cycles; 120 N load on latch bolt

### Digit 3 - Door mass and closing force

Ten grades of door mass and closing force are identified.

**Grade 0:** Locks without a latch bolt

**Grade 1:** up to 100 kg door mass; 50 N maximum closing force;

**Grade 2:** up to 200 kg door mass; 50 N maximum closing force

**Grade 3:** above 200 kg door mass or specified by the manufacturer; 50 N maximum closing force

**Grade 4:** up to 100 kg door mass; 25N maximum closing force

**Grade 5:** up to 200 kg door mass; 25N maximum closing force

**Grade 6:** above 200 kg door mass or specified by the manufacturer; 25 N maximum closing force

**Grade 7:** up to 100 kg door mass; 15 N maximum closing force

**Grade 8:** up to 200 kg door mass; 15N maximum closing force

**Grade 9:** above 200 kg door mass or specified by the manufacturer; 15 N maximum closing force.

### Digit 4 - Suitability for use on fire resisting and/or smoke control doorset.

Four grades of suitability for use on fire resisting/smoke control doorsets are identified.

**Grade 0:** not verified for use on fire/smoke resisting door assemblies

**Grade A:** for use on smoke control doorset assemblies based on a test in accordance with EN 1634-3 where the lock contributes to the integrity as described in Annex A

**Grade B:** for use on smoke control and fire resisting doorset assemblies based on a test in accordance with EN 1364-1 or EN 1634-2 where the lock contributes to the integrity as described in Annex A

**Grade N:** for use on smoke control and fire resisting doorset assemblies based on a tests where the lock does not contribute to keeping the door in a closed position during the fire resisting and/or smoke control test as described in Annex A.

### Digit 5 - Safety

Only one grade of safety is identified.

**Grade 0:** no safety requirement.

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# BS EN 12209 : 2016

## Digit 6 - Corrosion Resistance and temperature

Six grades of corrosion resistance and temperature requirement are identified.

**Grade 0:** no defined corrosion resistance; no temperature requirement

**Grade A:** low corrosion resistance;(24h) no temperature requirement

**Grade C:** high corrosion resistance; (96h) no temperature requirement

**Grade D:** very high corrosion resistance; (96h) no temperature requirement

**Grade F:** high corrosion resistance; (96h) temperature requirement: from -10°C to + 60°C

**Grade G:** very high corrosion resistance;(240h) temperature requirement: from-10°C to + 60°C

## Digit 7 - Security and drill resistance

Eight grades of security and drill resistance related to the side of the lockcase that it is assumed to resist an attack.

**Grade 0:** No security requirement.

**Grade 1:** Minimum security and no drill resistance

**Grade 2:** Low security and no drill resistance

**Grade 3:** Medium security and no drill resistance

**Grade 4:** High security and no drill resistance

**Grade 5:** High security with drill resistance

**Grade 6:** Very high security and no drill resistance

**Grade 7:** Very high security with drill resistance.

## Digit 8 - Key identification of lever locks

Nine grades are identified from 0 to H.

**Grade 0:** No security requirement.

**Grade A:** Minimum three detaining elements

**Grade B:** Minimum five detaining elements

**Grade C:** Minimum five detaining elements, extended number of effective differs

**Grade D:** Minimum six detaining elements

**Grade E:** Minimum six detaining elements, extended number of effective differs.

**Grade F:** Minimum seven detaining elements

**Grade G:** Minimum seven detaining elements, extended number of effective differs

**Grade H:** Minimum eight detaining elements, extended number of effective differs

**Safe  
Secure  
Accessible**



## Product Marking

The standard requires the following additional information to accompany the CE Marking required for locks and latches intended for use on fire resisting doors and smoke control doors.

The 2016 version of the standard has changed in respect of product marking, the following are the main differences between the 2003 and 2016 version:

Marking	2003	2016
Manufacturer name or TM	Packaging only	Product, packaging & instructions
Manufacturer address	-	Instructions only
Product identification	Packaging only	Packaging & instructions
Classification coding	Packaging only	Product & instructions
Number & year of standard	Packaging only	Product, packaging & instructions
Year/month of manufacture	-	Product only
ID of certification body	-	Product & instructions
Product information	-	Instructions only

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