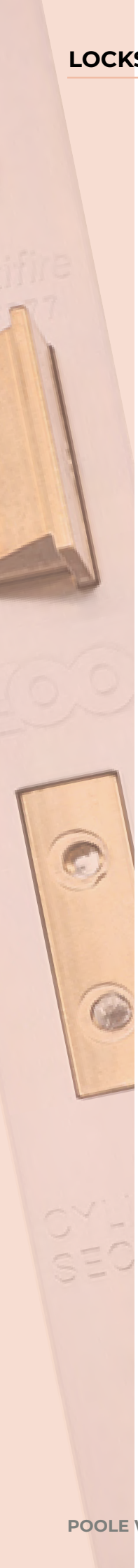
POOLE WAITE

Locks & Latches

Compliance and Technical Guidance



LOCKS & LATCHES

INTRODUCTION

Locks and latches are essential components of any fire-resisting doorset. While they provide security and day-to-day functionality, they must also preserve fire performance, smoke control, and accessibility. Selecting the correct product ensures that certification is maintained, users are protected, and compliance requirements are met.

This guide outlines the key standards, certification requirements, and best practice considerations for locks and latches.

LEGAL & STANDARDS OVERVIEW
The specification of locks and latches is governed by:

- **BS EN 12209** – mechanical performance requirements for locks and latches.
- **BS EN 1634-1** – fire resistance testing as part of a complete doorset.
- **Equality Act 2010 and Approved Document M** – accessibility requirements for usability.
- **BS 8300** – inclusive design guidance for locking hardware in public environments

All locks and latches for fire-resisting doors should be

- **CE marked** (UKCA marking is voluntary)
- **Certifire approved** to ensure compatibility with fire-resisting doors.
- Fitted with the correct **intumescent** gasket kit during installation (subject to fire door test evidence.)
- Supplied with a Declaration of Performance (DoP).
- Tested and graded for durability under BS EN 12209.

KEY COMPLIANCE REQUIREMENTS

COMPLIANCE REQUIREMENTS

- An intumescent gasket kit must be used to maintain fire integrity, if required under fire door test evidence.
- Locks must be tested as part of a complete doorset to ensure compatibility.
- DIN-standard lock cases and UK-standard cases are both used; specification should match project requirements. Note: UK standard lock cases are not compliant with BS 8300.

BS EN 12209 ONLY APPLIES TO LEVER LOCKS; CYLINDERS SHOULD COMPLY WITH BS EN 1303 + BS EN 1634-1

A NOTE ON ACCESSIBILITY AND INCLUSIVE DESIGN

Locks and latches must balance security with ease of use:

- Operation should require minimal strength and dexterity.
- Thumb turns and lever actions are preferable to small knobs or tight key actions.
- Lock and latch positions should align with handles, 900-1050mm above finished floor level.
- In high-traffic or specialist settings, electronic or powered locking systems may support accessibility and compliance.

BS EN 12209:2003 CLASSIFICATION GUIDE

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 –Test door mass
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
No requirement for safety

Digit 6 – Corrosion resistance
Eight grades are identified neutral salt spray with and without temperature resistance.

Digit 7 – Safety
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:

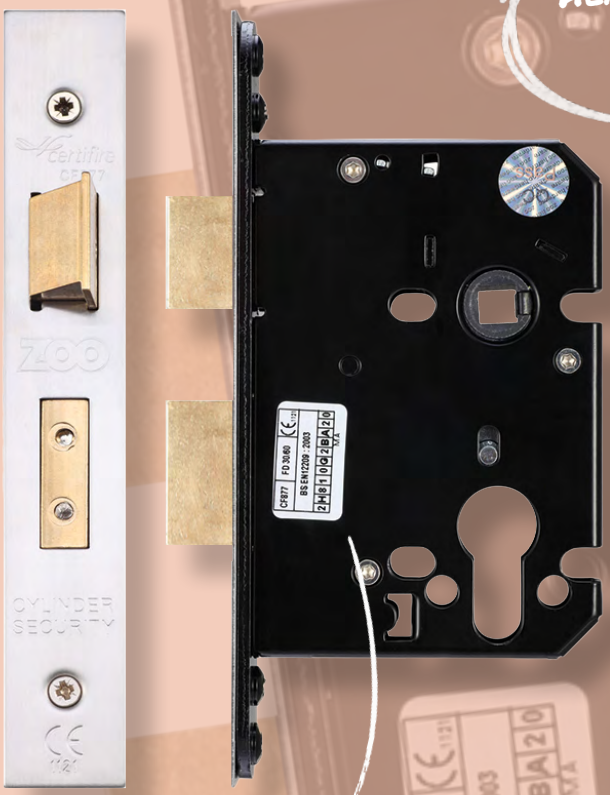
- **Grade 0:** lock without follower
- **Grade 1:** lock with sprung lever or knob
- **Grade 2:** lock with light unsprung lever
- **Grade 3:** lock with heavy unsprung lever
- **Grade 4:** lock with manufacturer’s own specification furniture

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

POOLE WAITE

LOCKS & LATCHES CLASSIFICATION



2	H	8	1	0	G	2	B	A	2	0

- **2** — Grade 2 Category of Use: medium frequency
- **H** — Grade H Durability
- **8** — Grade 8 test door mass
- **1** — Grade 1: Suitable for use on fire doors
- **0** — No requirement for safety
- **G** — Grade G corrosion resistance
- **2** — Grade 2 Security: Low
- **B** — Field of Door Application: Grade B
- **A** — Type of key operation and locking: Grade A
- **2** — Grade 2 Type of spindle operation: lock with light unsprung lever
- **0** — Grade 0 Key identification: no requirement

DESIGN CONSIDERATIONS

Architectural specification may also take into account the following design considerations.

Integration

- Integration of locks with electronic access control systems (keypads, card readers, maglocks).

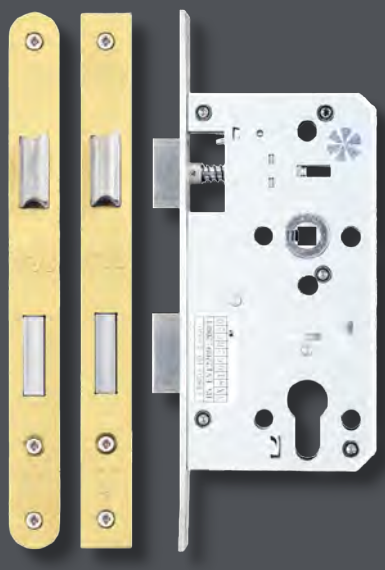
Finish selection

- Coordinate the finish of locks and latched specified with handles, hinges, and other door ironmongery.

Security grading

- Select products with a security grading appropriate to the building type: domestic, commercial, or high-security applications.

GOOD DESIGN SHOULDN'T COME AT THE EXPENSE OF SPECIFICATION STANDARDS – ALWAYS ENSURE PRODUCTS ARE FIRE DOOR RATED AND TESTED



Heavy Duty Architectural DIN Euro Sash Lock Case (DDA) – PVD Anti-tarnish Brass

"Project" Mechanical Digital Door Lock – Satin Chrome Plate

Heavy Duty Bathroom Lock Case – Adonic Matt Bronze

All of the products above must be fitted with the correct intumescent kit for compliance