The ARRONE® range of architectural locks is manufactured to the highest engineering standards and designed to offer a high price/performance ratio. They have been successfully type tested to all the requirements of BS EN12209. The classification achieved is given for each lock separately.

BS EN12209 Building Hardware – mechanically operated locks, latches and locking plates

1

Digit 1 – Category of use
Three categories of use are identified:
- grade 1: low frequency of use by people 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

2

Digit 2 – Durability
Twelve grades are identified with minimum figures for deadbolt and snib operation, and latch bolt operation with and without side load, as shown. The side load is applied to the latch bolt when it is being withdrawn.

↑ No. of operations	Increasing side load →				
	grade C	grade H	grade M	grade S	grade X
	grade B	grade G	grade L	grade R	grade W
	grade A	grade F			

3

Digit 3 – Door mass and closing force
Nine grades are identified with maximum figures for closing force at various door masses as shown. **Note:** closing force is from a standing start: i.e. fully extended latch bolt in contact with striking plate at start of test.

Maximum closing force	up to 100 kg	Door mass up to 200 kg	above 200 kg
15 N	grade 7	grade 8	grade 9
25 N	grade 4	grade 5	grade 6
50 N	grade 1	grade 2	grade 3

4

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 EN1634-1 etc.

Note 1: A grade 1 classification means only that the lock has been designed for use on fire/smoke control doors; the actual fire performance achieved (e.g. fire integrity of 30 minutes on a partially glazed timber door etc.) will be contained in a separate fire test report.

Note 2: Where a product is intended for fire/smoke door use (i.e. a "1" in box 4), it must be possible to demonstrate compliance with the Essential Requirements of the Construction Products (Amendments) Regulations. It is recommended that the product should bear the CE mark (see section on CE marking).

5

Digit 5 – Safety
No requirement, but note: a lock or latch conforming to this standard can, at the same time, also be part of an exit device conforming to BS EN179 or BS EN1125.

6

Digit 6 – Corrosion resistance
Eight grades are identified with neutral salt-spray (NSS) corrosion resistance grades from BS EN1670:2007, with and without temperature resistance as shown:

Corrosion resistance (NSS)	Temperature resistance	
	No requirement	-20 °C to +80 °C
240 hours	grade D	grade G
96 hours	grade C	grade F
48 hours	grade B	grade E
24 hours	grade A	
No requirement	grade 0	

7

Digit 7 – Security and drill resistance
Seven grades are identified with minimum figures for requirements relating to physical attack, with or without drilling of the lockcase, as shown:

	No drilling requirement	Drilling requirement
Increasing resistance to attack	grade 6	grade 7
	grade 4	grade 5
	grade 3	
	grade 2	
	grade 1	

8

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 lockcase when installed.

9

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 requirement as shown. In addition, there is a maximum key torque operating requirement of 1.5 Nm and a minimum key strength requirement of 2.5 Nm.

- grade 0: not applicable
- grade A: cylinder lock or latch; manually locking
- grade B: cylinder lock or latch; automatically locking
- grade C: cylinder lock or latch; manually locking with intermediate locking
- grade D: lever lock or latch; manually locking
- grade E: lever lock or latch; automatically locking
- grade F: lever lock or latch; manually locking with intermediate locking
- grade G: lock or latch without key operation; manually locking
- grade H: lock without key operation; automatically locking

10

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

11

Digit 11 – Key identification

Nine grades are identified relating to the number of differs and levers. Grade 0 relates to a latch with no locking action:

No. of differs ↑	No. of levers →								
									grade H
					grade F			grade G	
				grade D			grade E		
			grade B			grade C			
		grade A							
	grade 0								

Note: This applies only to lever locks.
Cylinders are assessed to BS EN1303:2005.

Fire doors – locks

British/European standard BS EN12209 is the recognised way of demonstrating compliance and requires that an official notified body proves both the product and the manufacturer's factory product controls are satisfactory before CE marking can be applied.
It is recommended that locks fitted to fire doors should be CE marked.