

BS EN 1303:2005 Building Hardware – Cylinders for Locks Requirements and Test Methods

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

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.

Digit 1: Category of use

Only one category is identified.

1 = keys shall resist a torque of 2.5Nm and still be usable.

Digit 2: Durability

Three grade of durability will classify cylinders as either grade 4, 5 or 6 based on the number of test cycles achieved.

4 = 25,000 cycles.

5 = 50,000 cycles.

6 = 100,000 cycles.

Key strength is also tested to ensure there is no failure of the key within the durability test.

Digit 3: Door mass

No requirement.

Digit 4: Fire resistance

0 = no requirement.

1 = cylinders shall be fire tested in accordance with current fire test requirements or BS EN 1634-1.

Digit 5: Safety

No requirement.

Digit 6: Corrosion resistance

0 = no requirement.

A = conforms to grade 3 of BS EN 1670 as a minimum.

B = will resist temperature extremes of -20/+80°C

C = conforms to grade 3 of BS EN 1670 as a minimum and will resist temperature extremes of -20/+80°C.

Digit 7: Key security

Cylinders are classified in grades 1 to 6, where 6 is the highest. The grade can differ from one side of a double cylinder to the other. The table below provides a summary of the main security criteria:

Requirement	Unit	Grades					
		1	2	3	4	5	6
Min number of effective differs	number	100	300	15,000	30,000	30,000	100,000
Min number of movable retainers	number	2	3	5	5	6	6
Max number of steps	%	100	70	60	60	60	50
Direct coding on key	-	Yes	Yes	No	No	No	No
Torque resistance of plug/cylinder	Nm	2.5	5	15	15	15	15

Digit 8: Attack resistance

Cylinders are classified in grades 0, 1 and 2, where 2 is the highest. The table below provides a summary of the main requirements:

Requirement	Unit	Grades		
		0	1	2
	minutes	0	1	2
Resistance to drilling (nett drilling time)	number	-	3	5
Resistance to chisel attack (number of defined blows)	number	-	30	40
Resistance to twisting attack (no. if defined twists)	number	-	20	30
Resistance to plug/cylinder extraction (pull load)	Kn	-	15	15
Torque resistance of plug/cylinder (torque on tool)	Nm		20	30

Example:

1 6 - 0 - B 3 1

The above code signifies a cylinder meeting the required category of use, durability grade 6 with no fire resistant requirement, will resist temperature extremes of -20/+80 °C, has a grade 3 key security and grade 1 attack resistance.

Marking:

This standard requires that the classification relevant to the cylinder shall be quoted in the accompanying documentation, on its labelling or packing and/or by marking the product itself or by more than one of these methods.

The marking/labelling shall include the following:

- a: manufacturer's name or trademark, or other means of identification,
- b: product model identification,
- c: the 8 digit classification listed above,
- d: number of this European standard.

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