Lloyd Worrall
ARCHITECTURAL SOLUTIONS

BS EN 1906 : 2012

BS EN 1906 : 2012 Lever handles and knob furniture

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

The European standard specifies the performance requirements and test methods (i.e. durability, static strength, operating torque, corrosion, safety, etc.) for sprung and unsprung lever handles and knobs for doors on backplates or roses. It applies only to lever handles and knobs that operate a lock or latch.The standard has 4 grades of performance. Compliance with the standard ensures a margin of strength in excess of that needed for normal operation. The standard has additional graded safety requirements where a high risk of failing exists.

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

Four grades are identified:

Grade 1: medium frequency of use with a high incentive to exercise care and a small chance of misuse e.g. internal residential doors

Grade 2: medium 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 use by public or others with little incentive to exercise care and with a high chance of misuse e.g. public office doors

Grade 4: high use on doors which are subject to frequent violent use, e.g. football stadiums, oil rigs, barracks, public toilets, etc.

Digit 2 - Durability

Two grades of durability are identified:

Grade 6: medium use – 100,000 cycles

Grade 7: high use – 200,000 cycles

The tests undertaken to achieve these grades involve the application of additional forces to the door furniture in order to simulate the conditions of use likely to be experienced in the field.

Digit 3 – Door mass

No requirement.

Digit 4 - Fire resistance

Five grades of fire resistance are identified and shall receive the extension "1" for an optional door cycle test:

Grade 0: no performance determined

Grade A: for use on smoke-control doors

Grade A1: for use on smoke-control doors, tested with 200 000 cycles on a test door

Grade B: for use on smoke-control and fire-resistant doors

Grade B1: for use on smoke-control and fire-resistant doors, tested with 200 000 cycles on a test door

Grade C: for use on smoke-control and fire-resistant doors with requirements for fire protection inlays in backplate, rose and escutcheon

Grade C1: for use on smoke-control and fire-resistant doors with requirements for fire protection inlays in backplate, rose and escutcheon, tested with 200 000 cycles on a test door

Note: Grades B or C means that the furniture has been included in at least one fire/smoke door test. This is not an indication that the furniture can be used on any fire/smoke door. Test evidence must be checked by a qualified person to ensure that the door types are sufficiently similar for the result to be transferable.

Digit 5 – Safety

Two grades of safety are identified:

Grade 0: normal use

Grade 1: safety application – to qualify for this grade, handles must have high strengthhandle-to-plate and plate-to-door fixing and/ or handle-to-spindle fixing, such that they would withstand a person grabbing in order to prevent falling. It is recommended that only Safety Grade 1 furniture is used at the top of cellar steps or other staircases.

Digit 6 – Corrosion resistance

Five grades are identified:

Grade 0: no defined corrosion resistance

Grade 1: mild resistance – minimum requirement for internal use grade 2: moderate resistance

Grade 3: high resistance – minimum requirement for external use

Grade 4: very high resistance for use in exposed marine atmospheres or very polluted industrial environments.

Grade 5: extremely high resistance

Note: Products intended to develop a natural patina (such as bronze or brass) are not required to comply with any requirements.

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Digit 7 – Security

Five grades are identified:

Grade 0: not approved for use on burglary resistant doors

Grade 1: mild burglary resistance

Grade 2: moderate burglary resistance

Grade 3: high burglary resistance

Grade 4: extra high burglary resistance

Note: The main requirements include resistance to drilling, plates, or escutcheons to help protect the lock and support the cylinder. They must be resistant to removal from the outside of the door and make provision to minimise the cylinder projection to a maximum of 3mm. Full details of the requirements can be found in Annex A.

Digit 8 – Type of operation

Three operation types are identified:

Type A: spring assisted furniture.

Type B: spring loaded furniture.

Type U: unsprung furniture.

Example

1	6	-	0	-	C	4	1

The above code denotes a lever handle for use on a door that has a high frequency of use and is subject to frequent violent use. It may be suitable for use on fire door assemblies and for use where safety is important. It has a very high corrosion resistance and a high burglary resistance suitable for external doors. It is of the unsprung type..

CE Marking

BS EN 1906 has not been designated as a harmonised product standard under the Construction Product Directive and therefore CE Marking of lever handles and knob furniture to this standard is NOT permitted.

Safe
Secure
Accessible