

Lever handles and knob furniture

EN1906:2010

	<p>This standard details performance requirements and test methods in relation to corrosion resistance, security and other aspects pertaining to the application of lock and latch furniture.</p>	
Scope	<p>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 back plates 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 falling exists.</p>	<p>Digit 4 Fire resistance Grade 0: not approved for fire and smoke doors. Grade A: for use on smoke control door assemblies. Grade B: for use on smoke control and fire resistance door assemblies. Grade C: for use on smoke control and fire resistance door assemblies with requirements for special core in the handle/knob</p>
Classification	<p>EN 1906 classifies door furniture by using an 8 digit coding system. A similar classification applies to all building hardware product standards so that complementary items of hardware can be specified to, for instance, a common level of corrosion resistance, category of use, etc. Each digit refers to a particular feature of the product measured against the standard's performance requirements.</p>	<p>Digit 5 Safety Grade 0: normal use Grade 1: safety application Note: To qualify for this grade, handles must have high strength handle-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.</p>
EN 1906:2010	<p>Digit 1 Category of use Grade 1: medium frequency of use with a high incentive to exercise care and a small chance of misuse. Grade 2: medium frequency of use by people with some incentive to exercise care but where there is some chance of misuse, Grade 3: high frequency of use by public or others with little incentive to exercise care and with a high chance of misuse. Grade 4: for use on doors which are subject to frequent violent usage</p> <p>Digit 2 Durability Grade 6: medium use - 100 000 cycles Grade 7: high use - 200 000 cycles</p> <p>Digit 3 Test door mass No requirement</p>	<p>Digit 6 Corrosion resistance 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. Grade 5: extremely high resistance</p> <p>Digit 7 Security 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, close fitting plates or escutcheons to help protect the lock and support the cylinder. They must be resistant removal from the outside of the door and make provision to minimize the cylinder projection to a maximum of 3mm</p> <p>Digit 8 Type of operation Type A: spring assisted furniture Type B: spring loaded furniture Type U: unsprung furniture</p>

Marking

Packaging, labelling, or the product itself should be marked with the following information:

- (a) manufacturer's name or trademark or other means of positive identification
- (b) product model identification
- (c) classification as detailed above
- (d) the number of this European standard
- (e) the year and week of final assembly by manufacturer.

Specification issues

Security:

Security lock furniture is one element of a burglary resistant door assembly that includes the door leaf and frame, lock, hinges and the method of fixing. Main design requirements include the use of at least two through-door fixings which cannot be detached from the outside. Requirements also include the use of an internal plate with a cylinder aperture that closely matches the cylinder profile and that the cylinder does not project more than 3mm from the face of the plate.

Springing:

Type A furniture has light springing only and is dependent upon the lock/latch springing to fully return the lever to the 'at rest' position. Type B furniture has integral springing capable of returning the lever to its rest position, whilst Type U is dependent wholly upon the lock/latch to return it to its rest position. It is essential, therefore, to select the correct lock/latch to suit the associated furniture

Application:

It is most important to specify the correct grade of door furniture for the intended application. For example, Category of Use Grade1 levers are most suited for light residential use, whereas Grade 4 door furniture is the most appropriate choice for buildings such as schools and sports stadia where there will be a high level of use, and possible abuse.

Fire Door Assemblies

Lock and latch furniture for use on fire/smoke doors requires a set of lock and latch furniture to comply with appropriate requirements of the European standard. In addition - for lock and latch furniture to be declared suitable for use on fire/smoke door assemblies, a third set of lock or latch furniture should be incorporated in a door assembly that has satisfied the criteria of a fire test according to EN 1634-1. This furniture should be fitted only to an identical design, shape and size of door assemblies compliant with specific fire test requirements.