

Door Handles & Knob Furniture

Compliance and
Technical Guidance

LEVER HANDLES, DOOR KNOBS & PULL HANDLES

INTRODUCTION

Handles and pull handles are among the most visible and frequently used components of any doorset. While they are often specified for their aesthetics, they play a critical role in ensuring fire performance, safety, and accessibility. Poor specification or substitution can compromise certification, while correct selection supports both compliance and inclusive design.

This guide sets out the main standards, certification, and best practice requirements for lever handles, knobs, and pull handles in architectural projects.

LEGAL & STANDARDS OVERVIEW

The performance of handles and pull handles is governed by:

- **BS EN 1906** – mechanical performance requirements for lever handles, knobs, and pull handles (strength, durability, and safety).
- **BS EN 1634-1** – fire resistance test for complete doorsets, including handles.
- **Equality Act 2010** and **Approved Document M** – requirements for accessibility and ease of use.
- **BS 8300** – inclusive design guidance for access and usability in public buildings.

KEY COMPLIANCE REQUIREMENTS

COMPLIANCE REQUIREMENTS

- Handles and pull handles must be tested and certified as part of a complete fire doorset.
- Handle height must be **900-1050mm above finished floor level** to meet accessibility guidance.
- Lever handles are generally preferred for accessibility, as they are easier to operate with minimal hand strength or dexterity.
- Pull handles should provide sufficient grip length. A **minimum of 300mm** is recommended for accessible routes.

**PRODUCTS NOT TESTED
TO THE REQUIRED
STANDARDS CAN
INVALIDATE ANY FIRE
CERTIFICATION**

A NOTE ON ACCESSIBILITY AND INCLUSIVE DESIGN

The choice of handle has a direct impact on usability:

- **Lever vs Knob:** Lever handles are easier to operate and are recommended for inclusive design. Knobs are harder to grip and may disadvantage less-abled users.
- **Grip design:** Handles should be comfortable, non-slip, and large enough to accommodate different users.
- **Finish:** Avoid high-gloss or highly reflective finishes that cause glare or become slippery. Matt or textured finishes are preferable in inclusive schemes.



BS EN 1906 CLASSIFICATION GUIDE

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 standards performance requirements.

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 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 office doors
- **Grade 4:** high frequency of use on doors which are subject to frequent violent use, e.g. 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

Digit 3 – Test door mass

No classification

Digit 4 – Fire resistance

Four grades are identified:

- **Grade 0:** no performance determined
- **Grade A:** for use on smoke 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 requirement for special core in the handle/knob.

Digit 5 – Safety

Two grades of safety are identified

- **Grade 0:** normal use
- **Grade 1:** safety application; example handles must have high strength handle-to-plate and plate-to-door fixing such that they would withstand a person grabbing in order to prevent falling.

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, recommended for use in exposed marine atmospheres or very polluted industrial environments
- **Grade 5:** exceptionally high resistance, recommended for use in exceptionally severe conditions where long-term protection of the product is required.

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, close fitting plates or escutcheons to help protect the lock and support the cylinder.

Digit 8 – Type of Operation

Three operation types are identified:

- **Type A:** spring assisted furniture
- **Type B:** spring loaded furniture
- **Type U:** unsprung furniture

LEVER HANDLE CLASSIFICATION

ROUND ROSE LEVER
HANDLE - PUSH ON
ROSE (SPRUNG)

Grade 3: high
frequency of
use

No requirement
for test door
mass

Grade 0:
Normal use

Grade 0: not
approved for
burglary resistant
doors

3 7 - B 0 5 0 B

Grade 7:
High use

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

Grade 5:
Exceptionally
high corrosion
resistance

Type B:
Spring loaded
furniture

POPULAR DESIGN CONSIDERATIONS

Finish selection

- Choose from a variety of finishes and specialist coatings including our Antimicrobial and Eco ranges
- Bespoke powder coating and colour matching to RAL colours

Cohesion

- Select complementary finish hardware
- Coordinate handles with hinges, door closers, and locks
- Unified architectural detail

Form

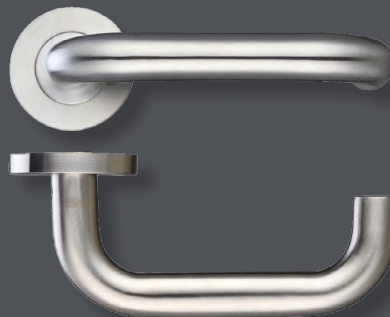
- A range of forms are available including straight or offset lever handles, cranked pull handles and more.
- Select according to door type, traffic flow, and accessibility requirements.



Round Rose Straight Lever Handles and Bathroom Turn and Release – Antimicrobial Eco-Friendly Matt Black



Tubular "D" Bolt Fixing Pull Handle – Antimicrobial Eco-Friendly Matt White



Round Rose Return to Door Lever Handles – Satin Stainless Steel



Cranked Entrance Pull Handles – Adonic Matt Bronze