

What is the difference between different stainless steel grades?

Stainless steel is an alloy of Iron and Chromium. It will also contain varying amounts of Carbon, Silicon, Manganese and, with certain grades, Nickel and/or Molybdenum may also be added to give the metal other useful properties.

The amount of each of these elements contained within the stainless steel will dictate its 'grade' (e.g. 316, 304, 430.)

Each different grade will have varying qualities such as corrosion and stain resistance, weldability, reduced stress cracking tendencies, magnetism etc. When selecting ironmongery and hardware fittings, you should therefore ensure the grade chosen is suitable for its purpose.

DID YOU KNOW STAINLESS
STEEL IS AN ALLOY?

THE AMOUNTS OF EACH
DIFFERENT ELEMENT IT
CONTAINS DICTATES ITS
GRADE.



FS0623 (Grade 201)

Why is there a price difference between two identically looking handles?



Does each conform to a **STANDARD**?
Have they been **TESTED** for use on fire doors?

ONLINE COMPANY

TRADE PRICE:
JUST £9.99 PER PAIR

- Unknown grade
- No standards

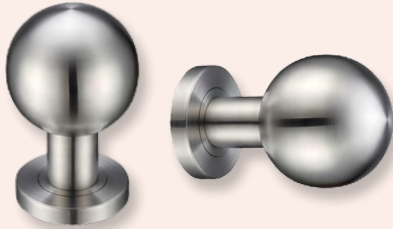
POOLE WAITE & CO LTD

PRICE: £11.98 PER PAIR

- Grade 304 SSS
- Fire Rated and tested:
- BS EN 1606:2010 grade 3
- BS EN 1670:2007 grade 5
- BS NE 1634-1
- Tested to 20,000 cycles
- Complies to design requirements of BS8300

Detailed below is a brief explanation of popular stainless steel grades found within the architectural ironmongery industry and their qualities.

GRADE 304



FS0401 (Grade 304)

- The most common general purpose grade
- Non-magnetic with good corrosion resistance.
- Ideal choice for fitting internally or externally.

GRADE 430



FS0950 (Grade 430)

- Lower carbon content
- Good, hardwearing material for all internal applications
- Can be used externally with regular maintenance to prevent contamination staining.

GRADE 201



FS0303 (Grade 201)

- A durable, non-magnetic grade suitable for internal applications
- A more cost-effective alternative than Grade 304
- Can be fitted externally due to low nickel content, but only in relatively sheltered locations and will require regular maintenance.

MARINE GRADE 316

Grade 316 is also referred to as 'marine grade'. It has excellent corrosion resistance, and is therefore recommended for coastal or swimming pool environments where the item will be consistently exposed to water.

For both interior and
external applications

**GRADE 316 TENDS TO BE
MORE EXPENSIVE THAN
OTHER GRADES DUE TO THE
ADDITION OF MOLYBDENUM,
WHICH PREVENTS ATTACKS
FROM CHEMICALS SUCH AS
CHLORINES AND CHLORIDES.**

suitable for harsh
environmental
conditions