

## Stainless Steel

## 1.4545 (15-5) Bar

Datasheet Updated  
05 August 2021

### SPECIFICATIONS

Commercial	15-5
EN	1.4545

A martensitic precipitation hardening chromium-nickel-copper stainless steel.

### CHEMICAL COMPOSITION

#### AMS 5659

Element	% Present
Carbon (C)	0.00 - 0.07
Chromium (Cr)	14.00 - 15.50
Manganese (Mn)	0.00 - 1.00
Silicon (Si)	0.00 - 1.00
Phosphorous (P)	0.00 - 0.03
Sulphur (S)	0.00 - 0.02
Nickel (Ni)	3.50 - 5.50
Copper (Cu)	2.50 - 4.50
Molybdenum (Mo)	0.00 - 0.50
Niobium (Columbium) (Nb)	0.00 - 0.45
Iron (Fe)	Balance

### ALLOY DESIGNATIONS

- 15-5
- UNS S15500
- AMS 5659
- EN 1.4545

### SUPPLIED FORMS

This is a bar specification, typically available in round and hexagon.

- Bar

### APPLICATIONS

- Aircraft components
- Cylinders
- Engine parts
- Fittings
- Gears
- Hollow shafts
- Marine gas turbine compressor sections
- Paper mill equipment
- Shafts
- Valves

### CHARACTERISTICS

- High strength
- Excellent corrosion resistance
- Good mechanical properties
- Superior toughness than 17-4

### MECHANICAL PROPERTIES

#### AMS 5659

Property	Value
Proof Stress	700-1170 MPa
Tensile Strength	930-1310 MPa
Elongation A50 mm	10-16 %
Hardness Brinell	277-444 HB

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