

## Stainless Steel

## AMS 5628 (7S80D) Bar

Datasheet Updated  
05 August 2021

### SPECIFICATIONS

Commercial	7S80D
Aerospace	AMS5628

Martensitic stainless steel that is the British aerospace standard for 431 stainless steel.

### CHEMICAL COMPOSITION

#### AMS 5628

Element	% Present
Carbon (C)	0.12 - 0.20
Chromium (Cr)	15.00 - 18.00
Manganese (Mn)	0.00 - 1.00
Silicon (Si)	0.00 - 1.00
Phosphorous (P)	0.00 - 0.03
Sulphur (S)	0.00 - 0.03
Nickel (Ni)	2.00 - 3.00

### ALLOY DESIGNATIONS

- BS 7S 80D
- 431S29
- S43100
- AMS5628

### SUPPLIED FORMS

- Bar
- Rod

### APPLICATIONS

- High strength marine fasteners, bolts and shafts
- Various aerospace components including high strength fasteners
- Valve parts
- Chemical equipment
- Bolts and screws

### CHARACTERISTICS

- High strength and toughness
- Very high corrosion resistance
- Resistance to oxidation up to 800°C

### MECHANICAL PROPERTIES

Property	Value
Proof Stress	690 MPa
Tensile Strength	880-1080 MPa
Elongation A50 mm	12 %
Hardness Brinell	255-321 HB

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