

## Stainless Steel

## 1.4057 (431) Bar

Datasheet Updated  
05 August 2021

### RANGE

Product Form	Condition	Imperial Sizes	Metric Sizes
Round Bar	QT800	1/8" - 6"	4.0mm - 30.0mm
Round Bar	Condition P	1/8" - 6"	4.0mm - 30.0mm

### SPECIFICATIONS

Commercial	431
EN	1.4057

A high chromium, low nickel high hardenability martensitic stainless steel.

### CHEMICAL COMPOSITION

Element	% Present
Carbon (C)	0.00 - 0.20
Manganese (Mn)	0.00 - 1.00
Silicon (Si)	0.00 - 1.00
Phosphorous (P)	0.00 - 0.04
Sulphur (S)	0.00 - 0.03
Chromium (Cr)	15.00 - 17.00
Nickel (Ni)	1.25 - 2.50

### ALLOY DESIGNATIONS

- DIN 1.4057
- X17CrNi16-2
- AISI 431
- BS431S29

### SUPPLIED FORMS

- Bar

### APPLICATIONS

- Marine systems
- Pump & propeller shafts
- Outboard motor driveshafts
- Valve stems
- Aircraft components
- Axles
- Fittings
- Bolts & nuts

### CHARACTERISTICS

- Considerable resistance to saltwater corrosion
- Heat treatable martensitic stainless steel
- High tensile and torsional strength and is well suited to shaft manufacture.
- Welding is poor and cannot be easily cold worked

### MECHANICAL PROPERTIES

Property	Value
Elongation A50 mm	11 %
Tensile Strength	850-1000 MPa
Proof Stress	665 MPa
Hardness Brinell	248-302 HB

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