



COPPER NICKEL ALLOYS

COPPER NICKEL BARS

Copper-nickel (or cupronickel) is stronger and significantly more oxidation-resistant at high temperatures than typical copper alloys making them ideal for marine applications including subsea environments.

- **70/30** CN107 / CW 354H / UNS C71500
DEF STAN 02-879 Annex B
- **90/10** CN102 / CW352H / UNS C70600
DEF STAN 02-879 Annex C
- **NES 835** DEF STAN 02-835
- **CuNi2Si** Copper Nickel Silicon
ASTM B411 / BS EN 12163 /
C64700 / CW111C



NICKEL ALLOYS

CORROSION RESISTANT

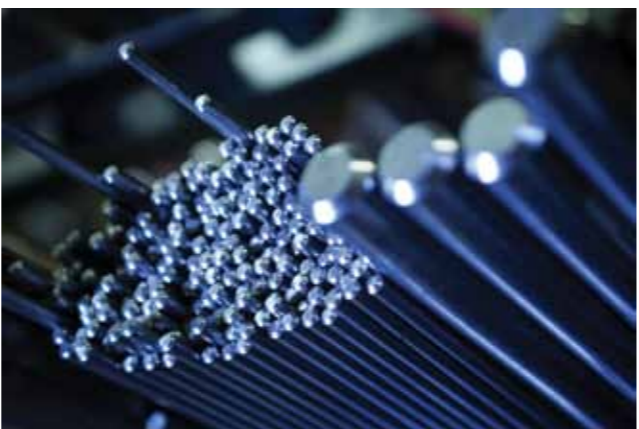
Our corrosion-resistant alloys include nickel grades developed to perform in various corrosive media such as oil & gas and marine applications.

- **Alloy 400** Nickel alloy bar
- **Alloy K500** Nickel alloy bar
- **Alloy 825** Nickel alloy bar

HIGH TEMPERATURE

Our heat-resistant alloy stock covers a broad selection of material grades and specifications. Our primary stockholding includes nickel-based alloys with a very high melting point.

- **Alloy 600** Nickel alloy sheets
- **Alloy 625** Nickel alloy bar / sheets
- **Alloy 718** Nickel alloy sheets
- **RENE 41** Nickel alloy bar / sheets



NICKEL ALLOYS

NICKEL IRON ALLOYS

Suitable for electronics, nickel iron alloys offer beneficial characteristics including high magnetic permeability and controlled / low thermal expansion.

- **Radiometal 4550** Nickel iron alloy bar
- **Alloy 36** Nickel iron alloy bar
- **Alloy 42** Nickel iron alloy bar
- **Alloy K** Nickel iron alloy bar

NICKEL COBALT

Our nickel cobalt alloy range operates in extreme environments thanks to an impressive balance of chemical and mechanical properties.

- **Alloy 263** Nickel cobalt sheet / bar
- **L605** Nickel cobalt bar
- **MP35N** Nickel cobalt bar

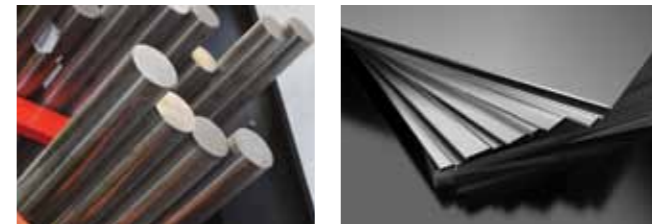


TITANIUM ALLOYS

HIGH STRENGTH LOW WEIGHT

Apart from offering the best strength-to-weight ratio available, titanium offers excellent strength at high temperatures, excellent corrosion resistance and good malleability at high temperatures. We stock both commercially pure and alloyed titanium products in round bars, sheets and tubes

- **CP Grade 2** Titanium sheet / tube
- **CP Grade 3** Titanium sheet
- **CP Grade 4** Titanium bar / sheet
- **6Al4V Grade 5** Titanium bar / sheet
- **3.0Al-2.5V Grade 9** Titanium tube
- **6Al4V-ELI Grade 23** Titanium bar
- **3.0Al-2.5V** Titanium tube
- **6242** Titanium bar



STOCK PROGRAMME

Smiths Advanced Metals

A leading global supplier of high-quality metals for specialist applications. We offer a wide range of products that meet the specific requirements of the world's most demanding industries.



A World of Speciality Metals

We provide an unrivalled supply path explicitly based around quality, service and value. We combine our services, including stock, processing and metallurgical support, to provide industry-leading engineering raw material support for domestic and international customers.

Market Support

Our stock portfolio is designed to meet the needs of the most challenging commercial markets. Our vast range of speciality alloys and engineering plastics are selected to support high-technology market sectors such as aerospace and oil & gas. We stock an enormous variety of grades, shapes and incremental sizes closer to your size requirements.

UNRIVALLED SUPPLY OPTIONS

- Multi market support
- Partnerships with global metal producers
- Bespoke supply solutions to improve your supply
- In-house processing operations
- A full selection of first stage engineering services
- UKAS Accredited Materials Testing Laboratory
- BSI ISO 9001, AS/EN 9100 & EN9120 accredited

All information in this guide is based on published data and is stated to the best of our knowledge and belief. It is presented apart from contractual obligations and does not constitute any guarantee of properties or of processing or application possibilities in individual cases. Our warranties and liabilities are stated exclusively in our terms of trading. E&OE.

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ALUMINIUM

REDUCING WEIGHT

We stock aluminium alloys in various grades, from general engineering products to alloys suitable for high-technology applications, including aerospace.

Bar Forgings Plate Sheet Tube

1200			●	●
2014A	●	●	●	●
2618A	●			
2024	●	●	●	●
2124		●		
2219	●	●	●	●
3103			●	
5052			●	●
5251			●	●
6013			●	
6061	●	●	●	●
6082	●		●	●
7010			●	
7050	●	●	●	
7068	●			
7075	●	●	●	●
7175		●		
7475		●	●	●

STAINLESS STEEL

EXCELLENT CORROSION RESISTANCE

Our stock range consists of various stainless steels, including austenitic, semi-austenitic and precipitation-hardened. We also stock duplex and super duplex stainless and aerospace grade materials.

Bar Sheet Tube

301	●	●	
303	●		
304		●	●
321	●	●	●
347	●	●	
410	●		
316VLM	●		
21-6-9			●
13-8PH	●		
15-5PH	●	●	
15-7PH		●	
17-4PH	●	●	
17-7PH	●	●	
440C	●		
A286	●	●	
BS S130	●		
BS S143	●		
BS S145	●		
BS S524		●	
BS S527		●	
BS S80	●		
AMINOX	●		
FERRINOX	●		
Custom 455	●		
Greek Ascology	●		
Nitronic 40	●		
Nitronic 50	●		
Nitronic 60	●		
UNS S32760	●		

STEEL ALLOYS

OUTSTANDING STRENGTH & DURABILITY

Steel materials are renowned for their strength and find widespread use in structural applications. Our steel alloy range furthers this with product grades offering enhanced performance characteristics. Our products improve many areas, such as tensile strength and dimensional stability.

- 4130 Steel bar / sheet / tube
- 4140 Steel bar
- 4330M Steel bar
- 4340 Steel bar
- 4340M Steel bar
- 9310 Steel bar
- Alloy 100 Steel bar
- CBS 50 Nil Steel bar
- T45 Steel tube



STEEL ALLOYS

MARAGING STEEL

Maraging steels are strong martensitic alloys with high fracture toughness. With very low carbon content, maraging steels have high strength-to-weight ratios making the alloy attractive as an engineering material, particularly in aerostructures.

- C250 Steel bar
- C300 Steel bar
- C350 Steel bar



AEROSPACE STEEL PRODUCTS

We stock a steel alloy range specifically for aerospace applications. Our stock comes in a variety of specific grades and shapes to suit all your engineering and fabrication requirements.

- BS S82 Steel bar
- BS S98 Steel bar
- BS S99 Steel bar
- BS S106 Steel bar
- BS S132 steel bar
- BS S154 Steel bar



YELLOW METALS

BRONZE & COPPER BARS

Bronze is a highly versatile engineering material and a useful engineering option in a broad range of market sectors. Copper offers excellent electrical and heat conductivity, good machinability and superior corrosion resistance.

- BS B23 Aluminium bronze
- NES 833 Nickel aluminium bronze
- NES 834 Aluminium silicon bronze
- PB104 Wrought phosphor bronze
- UNS C63000 Nickel aluminium bronze
- Alloy 25 Beryllium copper
- C107 Arsenical copper

