

# Alloy 925

## Product Datasheet



Nickel Iron Chromium Alloy

Service. Quality. Value.

### Strength and Corrosion Resistance

Alloy 925 is a precipitation-hardened made from nickel, iron and chromium with additions of aluminium, copper and molybdenum.

The material is suitable for applications where a combination of high strength with excellent corrosion resistance is required. Alloy 925 is used in sour gas applications including down-hole and surface gas and well components due to the material's resistance to sulphide stress cracking and stress corrosion cracking. Performance characteristics also include outstanding general corrosion, pitting, crevice corrosion and stress corrosion resistance. Nickel and chromium in the alloy mix promote protection in both reducing and oxidising environments.



### Key Features

- Excellent corrosion resistance
- Outstanding general corrosion resistance
- High strength
- Ideal for use in sour gas environments

### Applications

- Oil production equipment
- Surface and downhole components
- Valves and pump shafts
- Fasteners

### Chemical Composition (weight %)

%	C	Si	Mn	P	S	Cr	Ni	Mo	Cu	NbCbTa	Ti	Al	Fe
Min	0.0	0.0	0.0	0.0	0.0	19.50	42.00	2.50	1.50	0.0	1.90	0.10	Bal
Max	0.03	0.50	1.00	0.030	0.030	22.50	46.00	3.50	3.00	0.50	2.40	0.50	Bal

### Mechanical Properties

Yield Strength RP0.2 Mpa	Tensile Strength RM, Mpa	Elongation (%)	Hardness (HRC)	Impact, Charpy-V, -60°C (J)
≥ 758	≥ 965	≥ 25	≤ 38	≥ 47

We supply Alloy 925 in round bar.

#### UK Service Centres:

Smiths Belfast **02895 908 897**  
Smiths Biggleswade **01767 604 704**  
Smiths Birmingham **0121 728 4940**  
Smiths Bristol **0117 971 2800**  
Smiths Chelmsford **01245 466 664**  
Smiths Gateshead **0191 469 5428**  
Smiths Horsham **01403 261 981**

Smiths Leeds **0113 307 5167**  
Smiths Manchester **0161 794 8650**  
Smiths Norwich **01603 789 878**  
Smiths Nottingham **0115 925 4801**  
Smiths Redruth **01209 315 512**  
Smiths Verwood **01202 824 347**  
Main Office **0845 527 3331**

#### Quality & Testing:



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