

# DTD 498

## Product Datasheet



Silicon-Nickel Bronze

Service. Quality. Value.

### A bronze alloy for very high integrity components

#### A solution annealed and precipitation hardened copper nickel silicon alloy

A copper bronze alloy containing nickel and silicon, DTD 498 is a UK Ministry of Defence specification designed for aerospace applications, which can be strengthened by heat treatment. The material provides an attractive range of performance characteristics, including high mechanical strength and excellent thermal and electrical conductivity. With good fatigue strength and corrosion resistance, DTD 498 is similar to the requirements of BS 2B 25, NFL 14-701, MSRR 8501, DIN 17672-1 and EN CW112C. Improvements in strength and hardness are achievable with further cold working.

DTD 498 is readily machinable and offers wear, galling and spark resistance characteristics.



#### Key Features

- Excellent electrical & thermal conductivity
- Good corrosion resistance
- Good fatigue strength
- Low magnetic permeability
- High mechanical strength

#### Applications

- Pump & valve components
- Offshore and marine applications
- Bushes and high performance bearings
- Mechanical seals
- Undercarriage components

#### Chemical Composition (weight %)

	Cu	Ni	Si
Min	Rem		
Max	Rem	3.5	0.8

#### Mechanical Properties (typical)

Ultimate Tensile Strength (N/mm <sup>2</sup> )	0.2% Proof Strength (N/mm <sup>2</sup> )	Elongation (%)	Hardness (HV)
580	460	18	159 - 207

DTD 498 is commonly available in sheet, strip, bar and as forging stock.

#### 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:



[www.smithmetal.com](http://www.smithmetal.com) [info@smithmetal.com](mailto:info@smithmetal.com)

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