CuNi2.5Si (DTD 498)

Smiths Advanced Metals

High Integrity Components

Aerospace copper nickel silicon alloy.



CuNi2.5Si (DTD 498) is a solution annealed and precipitation hardened copper nickel silicon alloy, designed for aerospace use.

The material offers high mechanical strength with excellent thermal and electrical conductivity, good fatigue strength and corrosion resistance. Further cold working improves strength and hardness. It is readily machinable, offers wear, galling and spark resistance, and has low magnetic permeability. Typical properties are a tensile strength of 580 N/mm^2, 18% elongation and a hardness of 159–207 HV.

DTD 498 is a UK Ministry of Defence specification.

We stock CuNi2.5Si (DTD 498) in a broad range of sizes, including bar and forging stock.

Key Applications

- **Aircraft undercarriage components**
- **Bushes & high-performance bearings**
- **Pump & valve components**
- **Mechanical seals**
- **Offshore & marine applications**

Benefits

- **High strength with good conductivity**
- **Wear, galling & spark resistance**
- **Low magnetic permeability**

Grades / Specifications

- **DTD 498**
- **BS 2B 25 (similar)**
- **MSRR 8501 (similar)**
- **DIN 17672-1 (similar)**

* Chemical Composition (weight %)

	Ni	Si	Al	Fe	Others	Cu
min.	2.0	0.4				Rem
max.	3.5	0.8	0.02	0.10	0.30	

* As per DTD 498

Metallurgical Support

Our UKAS Accredited Testing Laboratory is unique to the UK stockholding sector, and we provide comprehensive metallurgical support, including an extensive range of testing services.

Processing

We supply products in both metric and imperial sizes and process your copper nickel silicon bars in-house. We stock materials in closer incremental sizes, which results in the supply of engineering materials where the need to machine the raw material down is not required.

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bsi ISO 9001 Quality Management Systems CERTIFIED | AS/EN 9100 Aviation Space and Defence CERTIFIED | EN 9120 Aviation Space and Defence CERTIFIED
UKAS TESTING 1930

All information in our data sheet is based on approximate testing 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.

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