

NS104

Technical Datasheet



Service. Quality. Value.

Nickel Silver Alloy

Typical Applications

- Connectors
- Relay springs
- Watch components
- Optical components
- Precision electronic parts
- Pressure membranes
- Wheels and pinions
- Contact springs

Product Description

NS104 is a wrought nickel silver alloy containing 63-65% copper, with an alpha phase structure. The alloy has excellent cold forming properties and good resistance to atmospheric corrosion as well as neutral and alkaline saline solutions, although resistance to oxidising acids is poor. Machinability is also rather poor - for better machinability it is recommended that a nickel silver with lead content is used.

Weldability

Can be brazed or welded.

Key features

- Good resistance to atmospheric corrosion
- Resistance to neutral and alkaline saline solutions
- Excellent cold forming properties
- Poor resistance to oxidising acids
- Poor machinability

Corrosion resistance

Good corrosion resistance

Related material specifications

- CuNi12Zn24 • CW403J

Availability

Bar, sheet.

Machinability

Poor.

Chemical Composition (weight %)

	Cu	Ni	Mn	Zn	Fe	Pb	Sn	Others
min	60.0	11.0	0.05	Rem				
max	65.0	13.0	0.30	Rem	0.25	0.04	0.03	0.20

Physical Properties

Modulus of elasticity	kN/mm ²	135
Poisson ratio		0.34
Density	kg/dm ³	8.67
Melting point / Melting range	°C	1060-1110
Linear dilatation coefficient (20-200°C)	/ °C	0,000018
Thermal conductivity at 20°C	W/m °K	42
Electrical conductivity	MS/m	4.4
Electrical conductivity	% IACS	8.00
Magnetic properties		Non magnetic

Technical Assistance

Our knowledgeable staff backed up by our resident team of qualified metallurgists and engineers, will be pleased to assist further on any technical topic.

UK Service Centres:

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Quality & Testing:



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