

Nickel Silver Alloy

Typical Applications

- Telecommunications
- Architectural panelling
- Pressure sensitive devices
- Camera parts
- Jewellery
- Relay and contact springs
- Connectors & connector pins
- Musical instruments

Product Description

NS106 is a nickel silver alloy which contains an alpha phase structure. The alloy offers good corrosion resistance to many organic products, waters and corrosive atmospheres but poor resistance to oxidising acids. NS106 has excellent cold formability and is widely used in the production of telecommunications equipment. Due to the alloys aesthetically appealing colour (silver, blue & white), NS106 is also used for architectural purposes in panelling and fascias.

Weldability

Can be brazed or welded.

Key features

- Good corrosion resistance
- Excellent cold working properties
- Attractive silver-blue-white colour
- Not resistant to oxidising acids
- Much lower sensitivity to stress corrosion cracking than in brass

Corrosion resistance

Good corrosion resistance

Related material specifications

- CuNi18Zn20 • CW409J

Availability

Bar, sheet.

Machinability

Poor.

Chemical Composition (weight %)

	Cu	Ni	Mn	Zn
min	60.0	17.0		Rem
max	65.0	19.0	0.50	Rem

Physical Properties

Density at 20 °C	8375	g/cm ³
Melting range	1060 - 1110	°C
Coefficient of thermal expansion at:		
20 to 100°C	0.000 015	per °C
20 to 300°C	0.000 016	per °C
Specific heat (thermal capacity) at 20°C	0.10	cal/g °C
Thermal conductivity at:		
20°C	15	Btu ft/ft ² h °F
200°C	17	Btu ft/ft ² h °F

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:

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 info@smithmetal.com