

# Nickel Silver



## CuNi12Zn24 / CW403J / C75700 / NS104

Version 4

Reference standard: EN 12166

Symbol	Number	Element	Cu	Fe	Mn	Ni	Pb	Sn	Zn	Bal.	Density g/cm <sup>3</sup>
CuNi12Zn24	CW403J	Min %	63.0	-	-	11.0	-	-	Rem	-	8.7
		Max %	66.0	0.3	0.5	13.0	0.03	0.03	-	0.2	

Nickel silver (also known as Alpaca) contains copper, nickel and zinc and is a bright silver colour in appearance. Nickel Silver wire is manufactured in flat, round and square sections in a full range of sizes and tempers to meet customer requirements.

Typical Tensile Strength N/mm <sup>2</sup>					
Size Range	Soft	¼ Hard	½ Hard	Hard	Spring Hard
0.1-0.5mm	430-530	520-620	620-730	730-850	850min
0.5-1.5mm	400-510	480-580	580-680	680-800	800min
1.5-4.0mm	370-480	460-560	560-660	660-780	780min
4.0-8.0mm	-	-	530-630	630-750	-
4.0-20.0mm	360-480	440-540	-	-	-

### Physical Properties:

- Resistivity: 0.023 ( $\Omega \times \text{mm}^2/\text{m}$ )
- Melting Point: 1020 - 1065 °C
- Elongation at soft temper: >25%

### Tolerances:

<0.25mm	±0.005mm
0.25-0.50mm	±0.008mm
0.50-1.00mm	±0.012mm
1.00-2.00mm	±0.02mm
2.00-4.00mm	±0.03mm

### Typical applications:

- Brush / anchor wire
- Resistance wire



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