

CN107 Copper Nickel Bar (BS 2874)

Smiths Advanced Metals

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Page: 1 of 1

For pumps, valves & flanges

We stock CN107 - a copper-nickel alloy bar product released to the British Standard BS 2874.

The material specification is equivalent to 70/30 copper-nickel alloy and, as the name denotes, contains a mix of 70% copper (Cu) with 30 nickel (Ni). Slight traces of iron and manganese are included to improve overall strength and corrosion resistance.

Material Attributes

CN107 bars offer improved performance in more severe application environments when compared to CN102 (an equivalent to 90/10 copper-nickel). The alloy provides good levels of toughness while being marginally stronger. The product benefits from excellent corrosion resistance and good resistance to biological fouling and pitting. With excellent property retention at low temperatures, CN107 represents a perfect choice for subsea applications. Our material also displays low electrical conductivity and a moderately high melting point.

Welding the alloy is straightforward by conventional welding methods, and the product is easy to machine and form.



Benefits

- Good toughness and pitting resistance
- Excellent corrosion resistance
- Stronger than CN102

Key Applications

- Propeller sleeves
- Heat exchangers
- Marine pipework

*Chemical Composition (weight %)

	Cu	Ni	Mn	Fe	C	B	Pb	Others
min.	Bal	30.00	0.50	0.40				
max.	Bal	32.00	1.50	1.00	0.06	0.08	0.01	0.30

* Properties as per BS 2874

*Physical & Mechanical Properties

Density	8.94 g/cm ³
Melting Point	1170-1240°C
Elastic modulus	150 GPa
Ultimate Tensile Strength	310 MPa min
Elongation	27% min

* Properties as per BS 2874

Commercial Uses

CN107 finds widespread use in the marine sector, including offshore, for above and subsea applications.

The material is utilised in the production of pumps, valves and flanges and also proves popular in propeller sleeves, which bridge the gap between the propeller and the gear housing. CN107 is also used to manufacture pipes. Our stock range includes a broad range of bar diameters, which we also process in-house to your size requirements.

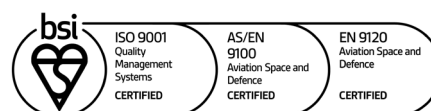
www.smithsadvanced.com

info@smithsadvanced.com



Stratton Business Park,
London Road, Biggleswade,
Bedfordshire SG18 8QB

Tel: +44 (0) 1767 604710



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