

Copper Alloys

DEFSTAN 02-879 (NES879)

Datasheet Updated
19 December 2024

RANGE

Product Form	Size Range
Round Bar DEFSTAN 02-780/879	25mm - 230mm

SPECIFICATIONS

Commercial	NES 879 70/30
EN	DEFSTAN 028-79

A 70% copper, 30% nickel alloy with additions of iron and manganese.

CHEMICAL COMPOSITION

NES 879 DEFSTAN

Element	% Present
Iron (Fe)	0.60 - 1.00
Manganese (Mn)	0.50 - 1.50
Nickel (Ni)	29.00 - 32.00
Copper (Cu)	Balance

ALLOY DESIGNATIONS

70/30- NES 780/DEFSTAN 02-780

- C71500
- CN107
- CuNi30
- DEFSTAN 02-879 Pt 2

SUPPLIED FORMS

- Bar
- Fittings & Flanges
- Castings
- Forgings
- Pipe
- Sheet
- Rod
- Plate

APPLICATIONS

- Salt water flanges, salt water piping and pipe fittings, valve bodies, sea water intakes, pipe fittings, water boxes, propeller sleeves, pump bodies and parts
- Marine hardware
- Heat exchangers
- Condensers
- Desalination units
- Evaporator tubes, distiller tubes, refrigerator and condenser components
- Flexible metal hose
- Boiler parts
- Pipework
- Submarine components

CHARACTERISTICS

- Excellent corrosion and pitting resistance in marine environments
- Good strength and toughness
- Resistance to biofouling
- Readily weldable and fabricated

MECHANICAL PROPERTIES

Property	Value
Elongation A50 mm	34 %
Proof Stress	120 MPa
Tensile Strength	330 MPa

DISCLAIMER

This Data is indicative only and as such is not to be relied upon in place of the full specification. In particular, mechanical property requirements vary widely with temper, product and product dimensions. All information is based on our present knowledge and is given in good faith. No liability will be accepted by the Company in respect of any action taken by any third party in reliance thereon. Please note that the 'Datasheet Update' date shown above is no guarantee of accuracy or whether the datasheet is up to date.

The information provided in this datasheet has been drawn from various recognised sources, including EN Standards, recognised industry references (printed & online) and manufacturers' data. No guarantee is given that the information is from the latest issue of those sources or about the accuracy of those sources. Material supplied by the Company may vary significantly from this data but will conform to all relevant and applicable standards. As the products detailed may be used for a wide variety of purposes and as the Company has no control over their use; the Company specifically excludes all conditions or warranties expressed or implied by statute or otherwise as to dimensions, properties and/or fitness for any particular purpose, whether expressed or implied. Advice given by the Company to any third party is given for that party's assistance only and without liability on the part of the Company. All transactions are subject to the Company's current Conditions of Sale. The extent of the Company's liabilities to any customer is clearly set out in those Conditions; a copy of which is available on request.