

Copper Alloys

DEFSTAN 02-833 NES833 Bar

Datasheet Updated
16 September 2024

RANGE

Product Form	Size Range
Round Bar	1/2" - 12"

SPECIFICATIONS

Commercial	NES 833 (2.0966)
EN	C63200

A nickel aluminium bronze manufactured to MOD standards primarily used in the marine & offshore industries.

CHEMICAL COMPOSITION

Element	% Present
Copper (Cu)	Balance
Iron* (Fe)	4.0 min - 5.0 max
Aluminium (Al)	8.5 min - 10.0 max
Manganese (Mn)	0.5 max
Nickel* (Ni)	4.5 min - 5.5 max
*Nickel content is to be greater than iron content	

ALLOY DESIGNATIONS

DEFSTAN (NES) 833 corresponds to the following designations:

- DEF STAN 833

SUPPLIED FORMS

- Bar

APPLICATIONS

- Marine valves
- Pumps
- Weapons handling systems
- Couplings
- Fasteners
- Gears
- Marine propeller shafts
- Valve components
- Heat exchangers
- Pipe fittings
- Bearings & bushes
- Safety tools
- Worm wheels
- Thrust washers

CHARACTERISTICS

- High strength and toughness
- Outstanding resistance to erosion and corrosion
- High wear and galling resistance
- Excellent mechanical properties at sub-zero temperatures
- Ultrasonically tested
- Non sparking

MECHANICAL PROPERTIES

Property	Value
Proof Stress	400-530 MPa
Tensile Strength	600-760 MPa
Elongation A50 mm	15-5 %
Hardness Vickers	170-220 HV

DISCLAIMER

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