



Copper and Copper Alloys - DEF STAN 02-835 ~ NES835

SPECIFICATIONS

Commercial	NES835 DEF STAN 835
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A Copper/Nickel Alloy with very high strength and very high corrosion resistance especially in seawater and marine environments. Also very good resistance to galling. Mainly used in Naval Engineering, Aerospace and Defence Applications.

CHEMICAL COMPOSITION

DEFSTAN 02-835/2(2011) Rod and Forgings	
Element	% Present
Nickel (Ni)	13.5 - 16.5
Manganese (Mn)	3.5 - 5.5
Aluminium (Al)	1 - 2
Iron (Fe)	0.7 - 1.2
Chromium (Cr)	0.5 max
Zinc (Zn)	0.2 max
Silicon (Si)	0.15 max
Sulphur (S)	0.15 max
Tin (Sn)	0.1 max
Carbon (C)	0.05 max
Magnesium (Mg)	0.05 max
Lead (Pb)	0.02 max
Phosphorous (P)	0.01 max
Copper (Cu)	Balance

ALLOY DESIGNATIONS

DEF STAN 02-835
NES835
NES 835
DEF STAN 835

TEMPER TYPES

FORGED AND HEAT TREATED

SUPPLIED FORMS

Bar Grades 1 and 2
Forgings Class 1, 2, 3

- Bar
- Rod
- Forgings

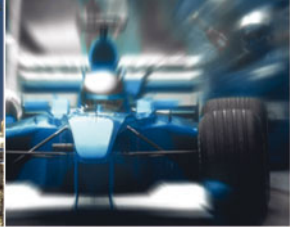
MECHANICAL PROPERTIES

DEFSTAN 02-835/2(2011)
Rod
Up to 125mm

Property	Value
Proof Stress	430 Min MPa
Tensile Strength	725 Min MPa
Elongation A50 mm	18 Min %

DEFSTAN 02-835/2(
Forgings
Up to 125mm

Property	Value
Proof Stress	400 Min MPa
Tensile Strength	725 Min MPa
Elongation A50 mm	18 Min %



CONTACT

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REVISION HISTORY

Datasheet Updated	13 November 2018
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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.

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