



## Copper and Copper Alloys - DEF STAN 02-834 ~ NES834

### SPECIFICATIONS

Commercial NES834 DEF STAN 834

A Silicon Aluminium Bronze Alloy with high strength and very high corrosion resistance especially in sewer and marine environments. Also has good ductility and impact strength. Mainly used in Naval Engineering, Nuclear, Aerospace and Defence Applications.

### CHEMICAL COMPOSITION

DEFSTAN 02-834(PT2)/1(2000)  
Rod, Section, Forging & Forging Stock

Element	% Present
Aluminium (Al)	6 - 6.4
Silicon (Si)	2 - 2.4
Iron (Fe)	0.5 - 0.7
Manganese (Mn)	0.5 max
Zinc (Zn)	0.4 max
Nickel (Ni)	0.1 max
Tin (Sn)	0.1 max
Lead (Pb)	0.01 max
Copper (Cu)	Balance

### ALLOY DESIGNATIONS

DEF STAN 02-834  
NES834  
NES 834  
DEF STAN 834  
DGS1044

### TEMPER TYPES

ANNEALED

### SUPPLIED FORMS

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

- Bar
- Rod
- Forgings

### MECHANICAL PROPERTIES

DEFSTAN 02-834(PT2)/1(2000)  
Rod & Section  
Up to 50mm

Property	Value
Proof Stress	275 Min MPa
Tensile Strength	525 Min MPa
Elongation A50 mm	20 Min %

Mechanical Properties shown are for annealed material.

DEFSTAN 02-834(PT2)/1(2000)  
Rod & Section  
50mm to 100mm

Property	Value
Proof Stress	235 Min MPa
Tensile Strength	525 Min MPa
Elongation A50 mm	20 Min %

Mechanical Properties shown are for annealed material.

DEFSTAN 02-834(PT2)/1(2000)  
Rod & Section  
Over 100mm

Property	Value
Proof Stress	220 Min MPa
Tensile Strength	525 Min MPa
Elongation A50 mm	20 Min %

Mechanical Properties shown are for annealed material.

DEFSTAN 02-834(PT2)/1(2000)  
Forging & Forging Stock  
All

Property	Value
Proof Stress	220 Min MPa
Tensile Strength	525 Min MPa
Elongation A50 mm	20 Min %

Mechanical Properties shown are for annealed material.



### CONTACT

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### REVISION HISTORY

Datasheet Updated	13 November 2018
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