

# NES 833

Smiths Advanced Metals

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## Nickel Aluminium Bronze Bar

For excellent corrosion resistance

NES 833 is a nickel aluminium bronze known for excellent corrosion resistance, high wear resistance and high galling resistance.

Other alloy features include high levels of toughness, strength and excellent performance characteristics at sub-zero temperatures. Corrosion resistance in both corrosion and erosion environments is outstanding. The material is produced to the specific requirements of the Ministry of Defence for Naval applications.

We also supply [NES 833 bronze bars](#) with a diameter greater than 15mm with ultrasonic inspection complying with DEF STAN 02-729 PT5. Impact values are also taken on all sizes above 15mm diameter.

Bars of grade [NES 833](#) are available in various sizes from stock.



### Grades / Specifications

- 2.9066
- CA 104
- CuAl9Ni5Fe4
- CW307G
- DEF STAN 02-833
- DGS1043
- DGS8452
- NF A51-116

### Key Applications

- Valve and pump components
- Propeller shafts
- High-performance fasteners
- Heavy duty bushes and bearings

### Chemical Composition (weight %)

	Cu	Al	Ni	Fe	Mn	Zn	Pb	Sn	Si	Mg	Total Impurities
min.	Bal	8.50	4.50	4.00							
max.	Bal	10.00	5.50	5.00	0.50	0.40	0.05	0.10	0.10	0.05	0.50

As per DEF STAN 02-833

### Mechanical Properties

Diameter	6-15mm	15-25mm	25-100mm	>100mm
UTS	680 N/mm <sup>2</sup>	680 N/mm <sup>2</sup>	635 N/mm <sup>2</sup>	620 N/mm <sup>2</sup>
Proof Strength	325 N/mm <sup>2</sup>	325 N/mm <sup>2</sup>	295 N/mm <sup>2</sup>	245 N/mm <sup>2</sup>
Elongation	17%	17%	17%	15%
Izod	-	24J	27J	23J

Properties as per DEF STAN 02-833

### Technical Sales Assistance

To find out more about the [NES 833 aluminium bronze bars](#) and for other technical advice, contact [Smiths Advanced Metals](#) today. Our team of qualified metallurgists and engineers will be pleased to assist further on any technical topic.

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