

Aluminium Bronze - NES 833 DEFSTAN 02-833

Round Bar

Properties

Stock		Chemical Properties	
Dia (in)	Weight/m (Kg)	Element	Chemical composition %
3/8	0.56	Iron (Fe)	4.20 typical
1/2	0.97	Aluminium (Al)	9.30 typical
5/8	1.52	Manganese (Mn)	0.30 typical
3/4	2.19	Nickel (Ni)	4.20 typical
20mm	2.40	Copper (Cu)	Balance
7/8	2.97		
25mm	3.72		
1	3.88		
1 1/8	4.89		
30mm	5.37		
1 1/4	6.10		
1 3/8	7.32		
1 1/2	8.73		
40mm	9.53		
1 5/8	10.24		
1 3/4	11.88		
1 7/8	13.65		
50mm	14.92		
2	15.52		
2 1/8	17.52		
55mm	18.05		
2 1/4	19.66		
60mm	21.45		
2 3/8	21.95		
2 1/2	24.28		
2 5/8	26.48		
2 3/4	29.36		
3	34.95		
80mm	38.22		
3 1/4	41.01		
3 1/2	47.50		
3 3/4	54.62		
100mm	59.59		
4	62.15		
4 1/4	70.20		
4 1/2	78.68		
120mm	85.80		
5	97.12		
130mm	100.70		
140mm	116.80		
5 3/4	127.50		
6	139.90		

Mechanical Properties	
Property	Value
Proof stress	400 - 530 MPa
Tensile strength	600 - 760 Mpa
Elongation A50 mm	15 - 5%
Hardness Vickers	170 to 220 HV

Physical Properties	
Property	Value
Density	7.5 Kg/m ³
Thermal Conductivity	42 W/m.K
Electrical Resistivity	0.172 x 10 ⁻⁶ Ω.m

160mm	157.00
6 1/2	164.15
6 3/4	177.00
180mm	193.10
190mm	215.10
8	248.64
220mm	288.40
235mm	341.48
9 1/2	360.00
262mm	424.41
10 1/2	440.00

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