

Aluminium Bronze - B150 C63000

Round Bar

Properties

Stock		Chemical Properties	
Dia (in)	Weight/m (Kg)	Element	Chemical Composition %
3/4	2.19	Copper (Cu)	Balance
7/8	2.97	Aluminium (Al)	9.0 - 11.0
1	3.88	Iron (Fe)	2.0 - 4.0
1 1/8	4.89	Manganese (Mn)	1.5
1 1/4	6.10	Nickel (Ni)	4.0 - 5.5
1 3/8	7.32	Silicon (Si)	0.25
1 1/2	8.73	Tin (Sn)	0.20
1 5/8	10.24	Zinc (Zn)	0.30
1 3/4	11.88		
1 7/8	13.65		
2	15.52		
2 1/4	19.66		
2 1/2	24.28		
2 3/4	29.36		
3	34.95		
3 1/4	41.01		
3 1/2	47.57		
3 3/4	54.62		
4	62.15		
4 1/4	70.20		
4 1/2	78.68		
4 3/4	87.64		
5	97.12		
5 1/4	107.10		
5 1/2	117.50		
6	139.90		
6 1/2	164.15		
7	190.36		
7 1/2	218.62		
8	248.64		

Physical Properties		Property	Value
		Melting Point - Liquidus	1930 °F
		Melting Point - Solidus	1895 °F
		Density	0.274 lb/in ³ at 68°F
		Specific Gravity	7.58
		Electrical Resistivity	116.0 Ωs-cmil/ft @ 68 °F
		Electrical Conductivity	7% IACS @ 68 °F
		Thermal Conductivity	22.6 Btu ft/(hr ft ² °F) at 68 °F
		Coefficient of Thermal Expansion	9.0 10 ⁻⁶ per °F (68-572 °F)
		Specific Heat Capacity	0.09 Btu/lb °F at 68°F
		Modulus of Elasticity in Tension	17500 ksi
		Modulus of Rigidity	6400 ksi
		Machinability Rating	30%

Room Temperature Tensile & Hardness Data						
Form	Temper	Section Size (ins)	Tensile (ksi) min	Yield (ksi) min	Elongation in HD min	Brinell (3000 kg)
Rod	Hot or cold	up to 1.0	110	68	10	201 - 248
	Finished and Heat Treated	to 2.0	110	60	10	201 - 248
		to 3.0	105	55	10	187 - 241
		3.0 - 12.0	100	50	10	187 - 241
	Plus	12.0 Plus	80	40	17	148 - 178
Forging	Heat treated	-	85	42.5	10	201 - 248

Disclaimer

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