

Aluminium Bronze - B150 C63200

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) | 8.7 - 9.5 | | |
| 1 | 3.88 | Iron (Fe) | 3.5 - 4.3 | | |
| 1 1/8 | 4.89 | Lead (Pb) | 0.02 | | |
| 1 1/4 | 6.10 | Manganese (Mn) | 1.2 - 2.0 | | |
| 1 3/8 | 7.32 | Nickel (Ni) | 4.0 - 4.8 | | |
| 1 1/2 | 8.73 | Silicon (Si) | 0.10 | | |
| 1 5/8 | 10.24 | | | | |
| 1 3/4 | 11.88 | Physical Properties | | | |
| 1 7/8 | 13.65 | Property | Value | | |
| 2 | 15.52 | Melting Point - Liquidus | 1940 °F | | |
| 2 1/4 | 19.66 | Melting Point - Solidus | 1905 °F | | |
| 2 1/2 | 24.28 | Density | 0.276 lb/in ³ at 68 °F | | |
| 2 3/4 | 29.36 | Specific Gravity | 7.64 | | |
| 3 | 34.95 | Electrical Resistivity | 148.0 Ωs-cmil/ft @ 68 °F | | |
| 3 1/4 | 41.01 | Electrical Conductivity | 7% IACS @ 68 °F | | |
| 3 1/2 | 47.57 | Thermal Conductivity | 20.0 Btu ft/(hr ft ² °F) at 68 °F | | |
| 3 3/4 | 54.62 | Coefficient of Thermal Expansion | 9.0 - 10.0 10 ⁻⁶ per °F (68-572 °F) | | |
| 4 | 62.15 | Specific Heat Capacity | 0.105 Btu/lb/°F at 68 °F | | |
| 4 1/4 | 70.20 | Modulus of Elasticity in Tension | 17000 ksi | | |
| 4 1/2 | 78.68 | Modulus of Rigidity | 6400 ksi | | |
| 4 3/4 | 87.64 | | | | |
| 5 | 97.12 | Room Temperature Tensile & Hardness Data | | | |
| 5 1/4 | 107.10 | Form | Rod | | |
| 5 1/2 | 117.50 | Temper | 050 | | |
| 6 | 139.90 | Section Size (ins) | 1 | 2 | 3 |
| 6 1/2 | 164.15 | Tensile Strength (ksi) min | 105 | 103 | 102 |
| 7 | 190.36 | Yield Strength (ksi) min | 53 | 52 | 51 |
| 7 1/2 | 218.62 | Elongation in HD min | 22% | 24% | 24% |
| 8 | 248.64 | Rockwell Hardness (B) | 96 | 94 | 93 |
| | | Shear Strength (ksi) | - | - | - |
| | | Fatigue Strength (ksi) | - | - | - |

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.

The information provided in this datasheet has been drawn from various recognised sources, including EN Standards, recognised industry references (printed & online) and manufacturers' data. No guarantee is given that the information is from the latest issue of those sources or about the accuracy of those sources.

Material supplied by the Company may vary significantly from this data, but will conform to all relevant and applicable standards.

As the products detailed may be used for a wide variety of purposes and as the Company has no control over their use; the Company specifically excludes all conditions or warranties expressed or implied by statute or otherwise as to dimensions, properties and/or fitness for any particular purpose, whether expressed or implied.

Advice given by the Company to any third party is given for that party's assistance only and without liability on the part of the Company. All transactions are subject to the Company's current Conditions of Sale. The extent of the Company's liabilities to any customer is clearly set out in those Conditions; a copy of which is available on request.