

CA 83300

Material

Notes: Casting methods recommended for this alloy: Sand.

Applications: Terminal ends for electrical cables.

Classified under: Red Brasses and leaded red brasses

Data typical for as-sand-cast separately cast [test](#) bars (M01 temper). Alloy does not respond to heat treating

Key Words: CA 833, contact metal, Ingot code no. 131

Physical Properties	Metric	English	Comments
Density	8.80 g/cc	0.318 lb/in ³	

Mechanical Properties	Metric	English	Comments
Hardness, Brinell	35	35	500 kg, typical
Tensile Strength, Ultimate	220 MPa	31900 psi	
Tensile Strength, Yield	70.0 MPa @Strain 0.500 %	10200 psi @Strain 0.500 %	
Elongation at Break	35 %	35 %	In 50 mm
Modulus of Elasticity	105 GPa	15200 ksi	
Machinability	35 %	35 %	UNS C36000 (free-cutting brass) = 100%

Electrical Properties	Metric	English	Comments
Electrical Resistivity	0.000005388 ohm-cm @Temperature 20.0 °C	0.000005388 ohm-cm @Temperature 68.0 °F	

Thermal Properties	Metric	English	Comments
Specific Heat Capacity	0.380 J/g-°C	0.0908 BTU/lb-°F	
Melting Point	1030 - 1060 °C	1890 - 1940 °F	
Solidus	1030 °C	1890 °F	
Liquidus	1060 °C	1940 °F	

Processing Properties	Metric	English	Comments
Annealing Temperature	260 °C	500 °F	Stress-Relieving Temperature

Component Elements Properties	Metric	English	Comments
Copper, Cu	92 - 94 %	92 - 94 %	
Lead, Pb	1.0 - 2.0 %	1.0 - 2.0 %	
Tin, Sn	1.0 - 2.0 %	1.0 - 2.0 %	
Zinc, Zn	2.0 - 6.0 %	2.0 - 6.0 %	