C2800

LEAD FREE BRASS

DESCRIPTION

C2800 is a lead free material which is however quite suitable for machining due to its structural constitution. C2800 can be used as a cost-effective replacement for conventional lead-containing machining brass provided that it must not meet high requirements as regards mechanical properties and corrosion resistance

CHEMICAL COMPOSITION

Elements	Min (%)	Max (%)
Cu	59.00	63.00
Pb	-	0.10
Fe	-	0.07
Zn	Remainder	

MECHANICAL PROPERTIES ACCORDING TO JIS 2800 (AS PER TEMPER BD)

Range (mm)	From	To	UTS Min (Mpa)	PS Min	Elongation Min (%)	Hardness Min (HV)	Hardness Max
Round (Dia)	1.5	75.00	375	-	10	-	-
Hex (A/F)	3.00	70.00	375	-	10	-	-
Square (A/F)	3.00	60.00	375	-	10	-	-
Rectangle (Thickness)	3.00	50.00	375	-	10	-	-

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PHYSICAL PROPERTIES

Melting Point - Liquidus°F	1660
Melting Point - Solidus°F	1650
Density lb/cu in. at 68°F	0.303
Specific Gravity	8.39
Electrical Conductivity % IACS at 68°F	28
Thermal Conductivity Btu/ sq ft/ ft hr/ °F at 68°F	71
Coefficient of Thermal Expansion 68-57210-6 per °F (68 - 572°F)	11.6
Specific Heat Capacity Btu/ lb /°F at 68°F	0.09
Modulus of Elasticity in Tension ksi	15000
Modulus of Rigidity ksi	5600

FABRICATION PROPERTIES

Technique	Suitability
Soldering	Excellent
Brazing	Excellent
Oxyacetylene Welding	Good
Gas Shielded Arc Welding	Fair
Coated Metal Arc Welding	Not Recommended
Spot Weld	Good
Seam Weld	Not Recommended
Butt Weld	Good
Capacity for Being Cold Worked	Fair
Capacity for Being Hot Formed	Excellent
Forgeability Rating	90
Machinability Rating	40

TYPICAL USES

- Architecture
- Builders Hardware
- Fasteners
- Industrial

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