

C27000

LEAD FREE BRASS

DESCRIPTION

C27000. These brasses have relatively good corrosion resistance, are moderately high in strength, and in some forms, have very good ductility. They are available in many forms including rod, bar, sheet, plate and more.

CHEMICAL COMPOSITION

Elements	Min (%)	Max (%)
Cu	63.00	68.50
Pb	-	0.10
Fe	-	0.70
Total Others		0.30
Zn	Remainder	

MECHANICAL PROPERTIES (AS PER TEMPER HO2)

Range (Inch)	From	To	UTS Min (Mpa)	UTS Max (Mpa)	PS Min (Mpa)	Elongation Min (%)	Hardness Min	Hardness Max
Round (Dia)	1.5	12.00	545.00	650.00	-	-	-	-
Hex (A/F)	3.00	12.00	545.00	650.00	-	-	-	-
Square (A/F)	3.00	12.00	545.00	650.00	-	-	-	-

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PHYSICAL PROPERTIES

Melting Point - Liquidus°F	1710
Melting Point - Solidus°F	1660
Density/lb/cu in. at 68°F	0.306
Specific Gravity	8.47
Electrical Conductivity% IACS at 68°F	27
Thermal ConductivityBtu/ sq ft/ ft hr/ °F at 68°F	67
Coefficient of Thermal Expansion 68-57210- ⁶ per °F (68 – 572°F)	11.3
Specific Heat Capacity Btu/ lb /°F at 68°F	0.09
Modulus of Elasticity in Tensionksi	15000
Modulus of Rigidityksi	5600

FABRICATION PROPERTIES

Technique	Suitability
Soldering	Excellent
Brazing	Excellent
Capacity for being hot worked	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	Excellent
Capacity for Being Hot Formed	Poor
Machinability Rating	30

TYPICAL USES

- Architecture
- Automotive
- Builders Hardware
- Electrical
- Fasteners
- Industrial
- Marine
- Plumbing