C28000

LEAD FREE BRASS

DESCRIPTION

C28000 is a lead free material which is however quite suitable for machining Due to its structural constitution. C28000 can be therefore 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	-	0.30
Fe	-	0.07
Total Others	-	0.30
Zn	Remainder	

MECHANICAL PROPERTIES (AS PER TEMPER HO2)

Range (Inch)	From	To	UTS Min (ksi)	UTS Max (ksi)	PS Min	Elongation Min (%)	Hardness Min (HRB)	Hardness Max (HRB)
Round (Dia)	0.059	2.953	58.00	70.00	-	-	52.00	80.00
Hex (A/F)	0.118	2.756	58.00	70.00	-	-	52.00	80.00
Square (A/F)	0.118	2.362	58.00	70.00	-	-	52.00	80.00

MECHANICAL PROPERTIES (AS PER TEMPER HO2)

Range (Inch)	From	To	UTS Min (Mpa)	UTS Max (Mpa)	PS Min	Elongation Min (%)	Hardness Min (HRB)	Hardness Max (HRB)
Round (Dia)	1.5	75.00	400.00	485.00	-	-	52.00	80.00
Hex (A/F)	3.00	70.00	400.00	485.00	-	-	52.00	80.00
Square (A/F)	3.00	60.00	400.00	485.00	-	-	52.00	80.00

RAJHANS METALS PRIVATE LIMITED

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C28000

LEAD FREE BRASS

PHYSICAL PROPERTIES

Melting Point - Liquidus°F	1660
Melting Point - Solidus°F	1650
Densitylb/cu in. at 68°F	0.303
Specific Gravity	8.39
Electrical Conductivity% IACS at 68°F	28
Thermal ConductivityBtu/ 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 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	Fair
Capacity for Being Hot Formed	Excellent
Forgeability Rating	90
Machinability Rating	40

TYPICAL USES

- Fasteners
- Industrial
- Architecture
- Builders Hardware

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