# LEAD FREE BRASS

### **DESCRIPTION**

Cz107 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 (%	5)		26. JHARA	Max (%)	
META	Cu	PADI.	. 9	64.00	IN SHI	Pr. July		67.0	is we
6 JHANG	Pb			HAMS .				0.10	
49	Fe	als Will	alitable	- All		CARLETAN	IHANS	0.10	
EIRLS	Total Others			ARS-				0.50	
.UANS PAR	en <sup>ultit</sup> Zn			ME ME	3.A.JHAI	Remainder		JE NEL	C JHAN S

### MECHANICAL PROPERTIES ACCORDING TO BS2873 (AS PER TEMPER 1/2H)

WE INC	Range (Inch)	From	To	UTS Min (Mpa)	UTS Max (Mpa)	PS Min	Elongation Min (%)	Hardness Min	Hardness Max
	Round (Dia)	1.5	75	460	620	MS - 15 M	- alth	- 64	-
	Hex (A/F)	3.00	70	460	620	- Althri	- 40	-	S - ME
× P	Square (A/F)	3.00	60	460	620	-		3 - ENE	- 144
R	ectangle (Thickness)	3.00	50	460	620	- ARC	- LS MET	O HARA	<u>Styr</u>

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### PHYSICAL PROPERTIES

Melting Point - Liquidus°F	1710
Melting Point - Solidus°F	1660
Density Ib/cu in. at 68°F	0.306
Specific Gravity	8.47
Electrical Conductivity % IACS at 68°F	27
Thermal Conductivity Btu/ sq ft/ ft hr/ °F at 68°F	67 MEINES
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 Tension ksi	15000
Modulus of Rigidity ksi	5600
17.3 (14)	

### **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	Excellent
Poor Miles M	Poor
Machinability Rating	30 NETHE

#### TYPICAL USES

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