

## DESCRIPTION

The C67300 manganese bronze is high in strength alloy with good bearing qualities. The alloy maintains high impact resistance with good machinability by making it well suited for clutch bearings, shaft bushings, sleeve bearings, thrust bearings, pump parts, drive shafts, bearing pins, wear plates, gears and cams.

## CHEMICAL COMPOSITION

Elements	Min (%)	Max (%)
Cu	58.00	63.00
Pb	0.40	3.00
Si	0.50	1.50
Mn	2.00	3.50
Sn	-	0.30
Fe	-	0.50
Ni	-	0.25
Al	-	0.25
Total Others	-	0.50
Zn	Remainder	

## MECHANICAL PROPERTIES (AS PER TEMPER Ho2)

Range (Inch)	From	To	UTS Min (Ksi)	PS Min (Ksi)	Elo Min (Ksi)	Hardness Min (HRB)	Hardness Max
Round (Dia)	0.059	1.000	65	40	12	70	-
	1.000	2.953	58	35	15	70	-
Hex (A/F)	0.118	1.000	65	40	12	70	-
	1.000	2.756	58	35	15	70	-
Square (A/F)	0.118	2.362	60	30	20	70	-
Rectangle (Thickness)	0.118	1.968	60	30	20	70	-

# C67300

# SILICON BRASS

Range (mm)	From	To	UTS Min (Mpa)	PS Min (Mpa)	Elo Min (%)	Hardness Min (HRB)	Hardness Max
Round (Dia)	1.5	25	450	275	12	70	-
	25	75	400	240	15	70	-
Hex (A/F)	3	25	450	275	12	70	-
	25	70	400	240	15	70	-
Square (A/F)	3	60	415	205	20	70	-
Rectangle (Thickness)	3	50	415	205	20	70	-

## PHYSICAL PROPERTIES

Melting Point - Liquidus°F	1605
Density lb/cu in. at 68°F	0.3
Specific Gravity	8.3
Electrical Conductivity % IACS at 68°F	22
Thermal Conductivity Btu/ sq ft/ ft hr/ °F at 68°F	55
Coefficient of Thermal Expansion 68-57210 <sup>-6</sup> per °F (68 – 572°F)	11
Modulus of Elasticity in Tension ksi	17000

## FABRICATION PROPERTIES

Technique	Suitability
Machinability Rating	70

## COMMON FABRICATION PROCESSES

- > Valves Stems
- > Hot Pressing
- > Machining

## TYPICAL USES

- > Fasteners
- > Industrial
- > Marine
- > Other