C67420

MANGANESE BRONZE

DESCRIPTION

C67420 is a special brass with very high wear resistance due to silicides embedded in the structure. This alloy is used for slide bearings and valve guides as well as for construction components in mechanical engineering. C67420 is also highly suitable for hot stamped parts requiring higher mechanical strength and higher Wear resistance.

CHEMICAL COMPOSITION

Elements	Min (%)	Max (%)
Cu	57.00	58.50
Pb	0.25	0.80
Sn	-	0.35
Al	1.00	2.00
Fe	0.15	0.55
Mn	1.50	2.50
Ni	-	0.25
Si	0.25	0.70
Total Others	-	0.50
Zn	Remainder	

MECHANICAL PROPERTIES (AS PER TEMPER Ho2)

Range (Inch)	From	To	UTS Min (ksi)	PS Min (ksi)	Elo Min (%)	Hardness Min (HRB)	Hardness Max (HRB)
Round (Dia)	0.059	2.953	87	46	15	85	-
Hex (A/F)	0.118	2.756	87	46	15	85	-
Square (A/F)	0.118	2.362	87	46	15	85	-
Rectangle (Thickness)	0.118	1.968	87	46	15	85	-

Range (mm)	From	To	UTS Min (Mpa)	PS Min (Mpa)	Elo Min (%)	Hardness Min (HRB)	Hardness Max (HRB)
Round (Dia)	1.5	75	600	317	15	85	-
Hex (A/F)	3	70	600	317	15	85	-
Square (A/F)	3	50	60	600	317	15	-
Rectangle (Thickness)	3	50	600	317	15	85	-

RAJHANS METALS PRIVATE LIMITED

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SILICON BRASS

PHYSICAL PROPERTIES

Melting Point - Liquidus°F	1650
Melting Point - Solidus°F	1590
Density lb/cu in. at 68°F	0.299
Specific Gravity	8.27
Electrical Conductivity % IACS at 68°F	18
Thermal Conductivity Btu/ sq ft/ ft hr/ °F at 68°F	51
Coefficient of Thermal Expansion 68-572 10^{-6} per °F (68 – 572°F)	11
Specific Heat Capacity Btu/ lb /°F at 68°F	0.09
Modulus of Elasticity in Tension ksi	14000
Modulus of Rigidity ksi	5250

FABRICATION PROPERTIES

Technique	Suitability
Soldering	Fair
Brazing	Good
Oxyacetylene Welding	Not Recommended
Gas Shielded Arc Welding	Fair
Coated Metal Arc Welding	Not Recommended
Spot Weld	Good
Seam Weld	Good
Butt Weld	Good
Capacity for Being Cold Worked	Poor
Capacity for Being Hot Formed	Excellent
Forgeability Rating	100
Machinability Rating	50

TYPICAL USES

- Industrial

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