

DESCRIPTION

C36300 is a lead free material suited for the use in drinking water applications. C36300 can be used where no high mechanical stresses occur. Uses: A ductile alloy suitable for blanking, riveting, bending, hot forging and pressing, hot heading, up-setting large nuts & bolts and brazing rods.

CHEMICAL COMPOSITION

Elements	Min (%)	Max (%)
Cu	61.00	63.00
Pb	0.25	0.7
Fe	-	0.15
P	0.04	0.15
Total imp	-	0.5
Zn	Remainder	

MECHANICAL PROPERTIES ACCORDING TO ASTM B921 (AS PER TEMPER H02)

Range (Inch)	From	To	UTS Min (Ksi)	PS Min (Ksi)	Elongation Min (%)	Hardness Min (HRB)	Hardness Max (HRB)
Round (Dia)	0.059	0.5	63.00	28.00	10.00	-	-
	0.5	1.00	55.00	26.00	12.00	-	-
	1.00	2.00	48.00	24.00	20.00	-	-
	2.00	2.9527	45.00	20.00	25.00	-	-
Hex (A/F)	0.1181	0.5	63.00	28.00	10.00	-	-
	0.5	1.00	55.00	26.00	12.00	-	-
	1.00	2.00	48.00	24.00	20.00	-	-
	2.00	2.7559	45.00	20.00	25.00	-	-
Square (A/F)	0.1181	0.5	63.00	28.00	10.00	-	-
	0.5	1.00	55.00	26.00	12.00	-	-
	1.00	2.00	48.00	24.00	20.00	-	-
	2.00	2.3622	45.00	20.00	25.00	-	-
Rectangle (Thickness)	0.1181	0.5	63.00	28.00	10.00	-	-
	0.5	1.00	55.00	26.00	12.00	-	-
	1.00	1.9685	48.00	24.00	20.00	-	-



MECHANICAL PROPERTIES ACCORDING TO ASTM B921 (AS PER TEMPER H02)

Range (Inch)	From	To	UTS Min (MPa)	PS Min (MPa)	Elongation Min (%)	Hardness Min (HRB)	Hardness Max (HRB)
Round (Dia)	1.5	12.00	430.00	190.00	10.00	-	-
	12.00	25.00	380.00	180.00	12.00	-	-
	25.00	50.00	330.00	165.00	20.00	-	-
	50.00	75.00	310.00	135.00	25.00	-	-
Hex (A/F)	3.00	12.00	430.00	190.00	10.00	-	-
	12.00	25.00	380.00	180.00	12.00	-	-
	25.00	50.00	330.00	165.00	20.00	-	-
	50.00	70.00	310.00	135.00	25.00	-	-
Square (A/F)	3.00	12.00	430.00	190.00	10.00	-	-
	12.00	25.00	380.00	180.00	12.00	-	-
	25.00	50.00	330.00	165.00	20.00	-	-
	50.00	70.00	310.00	135.00	25.00	-	-
Rectangle (Thickness)	3.00	12.00	430.00	190.00	10.00	-	-
	12.00	25.00	380.00	180.00	12.00	-	-
	25.00	50.00	330.00	165.00	20.00	-	-

PHYSICAL PROPERTIES

Melting Point - Liquidus°F	1650
Melting Point - Solidus°F	1630
Densitylb/cu in. at 68°F	0.304
Specific Gravity	8.42
Electrical Conductivity% IACS at 68°F	26
Thermal ConductivityBtu/ sq ft/ ft hr/ °F at 68°F	51.5
Specific Heat Capacity Btu/ lb / °F at 68 F	0.088

FABRICATION PROPERTIES

Technique	Suitability
Soldering	Excellent
Brazing	Good
Oxyacetylene Welding	Fair
Gas Shielded Arc Welding	Fair
Coated metal Arc Welding	Not Recommended
Spot Weld	Fair
Seam Weld	Not Recommended
Butt Weld	Fair
Capacity for Being Cold Worked	Excellent
Capacity for Being Hot Formed	Excellent
Forgeability Rating	Good
Machinability Rating	80

TYPICAL USES

- > Plumbing

