CW511L

LEAD FREE BRASS

DESCRIPTION

CW511L is a lead free material suited for the use in drinking water applications. It can be used for water qualities that require dezincification resistant material. CW511L can be used where no high mechanical stresses occur. This alloy meets the requirements for dezincification resistant material according to ISO 6509.

CHEMICAL COMPOSITION

Elements	Min (%)	Max (%)
Cu	61.50	63.50
Pb	-	0.20
Fe	-	0.10
Sn	-	0.10
Ni	-	0.30
Al	-	0.05
AS	0.02	0.15
Total Others	-	
Zn	Remainder	

MECHANICAL PROPERTIES (AS PER TEMPER R320)

Range (mm)	From	To	UTS Min (N/mm^2)	PS Min (N/mm^2)	Elongation Min %	Hardness Min	Hardness Max
Round (Dia)	6	60	320	200	20	-	-
Hex (A/F)	5	50	320	200	20	-	-
Square (A/F)	5	50	320	200	20	-	-

RAJHANS METALS PRIVATE LIMITED

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PHYSICAL PROPERTIES

Coefficient of Thermal Expansion	21.7 10 -6 (20-300 C)
Density	8.41 gm/cm3 @ 20 C
Electrical Conductivity	0.164 MegaSiemens /cm @ 20 C
Electrical Resistivity	6.15 microhm-cm @ 20 C
Melting Point Liquid US	904 C
Melting Point Solid US	899 C
Modulas of Elasticity in Tension	103400 MPa
Modulas of Rigidity	38610 MPa
Specific Gravity	8.39

FABRICATION PROPERTIES

Joining Technique	Suitability
Brazing	Excellent
Butt Weld	Good
Capacity for Being Cold Worked	Fair
Capacity for Being Hot Formed	Excellent
Coated Metal Arc Welding	Not Recommended
Forgeability Rating	90
Gas Sheilded Arc Welding	Fair
Machinability rating	40
Oxyacetylene Welding	Good
Seam Weld	Not Recommended
Soldering	Excellent
Spot Weld	Good

TYPICAL USES

- Plumbing
- Plumbing Fitting
- Forging
- Bending
- Riveting

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