CW710R

MANGANESE BRONZE

DESCRIPTION

CW710R, brass, is a readily extrudable leaded alpha/beta brass with aluminium addition, which gives a bright golden colour. The Small addition of lead gives free cutting properties

CHEMICAL COMPOSITION

Elements	Min (%)	Max (%)
Cu	58.00	60.00
Pb	0.20	0.80
Al	0.30	1.30
Fe	-	0.50
Mn	1.50	2.50
Ni	2.00	3.00
Sn	-	0.50
Si	-	0.10
Total Others	-	0.30
Zn	Remainder	

MECHANICAL PROPERTIES ACCORDING TO EN12165 CW710R (AS PER TEMPER H120)

Range (mm)	From	To	PS Min (N/mm^2)	Elo Min (%)	Hardness Min (HB)	Hardness Max (HB)
Round (Dia)	8	75	-	-	120	200
Hex (a/F)	8	60	-	-	120	200
Square (A/F)	8	60	-	-	120	200
Rectangle (Thickness)	8	50	-	-	120	200

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PHYSICAL PROPERTIES

Electrical conductivity	7.8 %IACS
Thermal conductivity	63 W/(m•K)
Thermal expansion coefficient (0–300 °C)	20.6 10-6/K
Density	8.12 g/cm³
Modulus of elasticity	93 Gpa

FABRICATION PROPERTIES

Technique	Suitability
Machinability (CuZn39Pb3 = 100 %)	50%
Capacity for being cold worked	Poor
Capacity for being hot worked	good
Resistance welding (butt weld)	good
Inert gas shielded arc welding	fair
Gas welding	fair
Hard soldering	fair
Soft soldering	fair
Melting range	870 – 900 °C
Hot working	600–700 °C
Soft annealing	500–650 °C (1–3 hr)
Thermal stress relieving	350–450 °C (1-3 hr)

TYPICAL USES

- Architecture
- Builders Hardware

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