

CW718R

MANGANESE BRONZE

DESCRIPTION

CW718 is a special brass with medium strength, high resistance to atmospheric corrosion as well as good sliding properties due to the alloying constituent's manganese and aluminium. CW718R is used as standard bearing alloy for medium load applications in machine construction.

CHEMICAL COMPOSITION

Elements	Min (%)	Max (%)
CU	57.00	59.00
Pb	0.20	0.80
Al	0.30	1.30
Fe	-	0.50
Mn	0.80	1.80
Ni	-	0.50
Sn	-	0.50
Si	-	0.50
Total others	-	0.30
Zn	Remainder	

MECHANICAL PROPERTIES Cw718 (AS PER TEMPER H130)

Range (mm)	From	To	UTS Min (N/mm ²)	PS Min (N/mm ²)	Elo Min (%)	Hardness Min (HB)	Hardness Max
Round (Dia)	6	75	-	-	-	130	-
Hex (a/F)	6	70	-	-	-	130	-
Square (A/F)	6	60	-	-	-	130	-
Rectangle (Thickness)	6	50	-	-	-	130	-

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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/cm ³
Modulus of elasticity	93 Gpa

FABRICATION PROPERTIES

Technique	Suitability
Machinability (CuZn39Pb3 = 100 %)	40%
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	Poor
Hard soldering	fair
Soft soldering	Poor
Melting range	860–910 °C
Hot working	600–700 °C
Soft annealing	500–650 °C (1–3 hr)
Thermal stress relieving	300–430 °C (1–3 hr)

TYPICAL USES

- Bushings
- Shafts