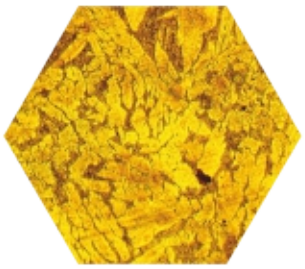

Microstructure

Alloy
CuAl10Fe2

iz-metal

Characteristics & Typical Applications

Copper-based alloy with aluminum and iron as principal elements. Extremely hard and tough material with high static and dynamic resistance, sea water, corrosion and erosion resistance. Good performance at high temperatures. The alloy has good abrasion resistance and can be used for slow-moving parts under high loads but need adequate lubrication.

Chemical Composition

Elements	Cu	Al	Fe	Mn	Ni	Mg	Pb	Si	Sn	Zn
EN 1982	83-89,5	8,5-10,5	1,5-3,5	1 max	1,5 max	0,05 max	0,1 max	0,2 max	0,2 max	0,5 max
Average Nominal	86	10	2	0,5	1	0,05	0,1	0,2	0,2	0,5

Typical Mechanical Properties

		Continuous Cast	Centrifugal Cast
Tensile Strength Rm	MPa(min)	550	550
%0,2 Yield Stress	MPa(min)	200	200
Elongation	%(min)	15	18
Hardness	HB(min)	130	130

Physical Properties

Density Specific	Heat Capacity	Electrical Conductivity	Thermal Conductivity
7.45 gm/cm^3 at 20°C	419.0 J/kg. °K at 20°C	0.075 Mega Siemens/ cm at 20°C	58.7 W/m.°K at 20°C

Fabrication Processes

Joining Technique	Soldering	Brazing	Oxyacetylene Welding	Gas Shielded Arc Welding	Coated Metal Arc Welding	Machinability Rating
Suitability	Good	Good	Not Recommendded	Good	Good	60

Related Specifications

DIN EN 1982	ASTM B505	ASTM B271
CC331G	C95200	C95200

Aluminum Bronze