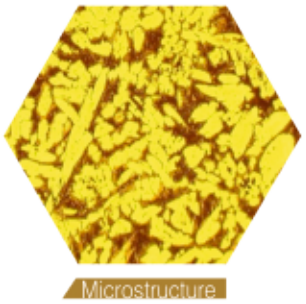

Microstructure

Alloy
CuAl10Fe5Ni5

iz-metal

Aluminum Bronze

Characteristics & Typical Applications

Construction material with high strength values, resistant in cold and even hot seawater. Very good thermal stability and fatigue strength in air and seawater. Highly resistant to cavitation and corrosion. Good lubrication is required when there is sliding stress. Very good pressure tightness and weldability. Highly stressed slide bearings and worm rims. High-pressure steam fittings, fittings for aggressive waters, pump housings.

Chemical Composition

Elements	Cu	Al	Ni	Fe	Mn	Zn	Si	Sn	Cr	Mg	Pb	Bi
EN 1982	76-83	8,5-10,5	4-6	4-5,5	3,0 max	0,5 max	0,1 max	0,1 max	0,05 max	0,05 max	0,03 max	0,01 max
Average Nominal	78	9	5	5	2,56	0,30	0,1	0,1	0,05	0,05	0,02	0,01

Typical Mechanical Properties

		Continuous Cast	Centrifugal Cast
Tensile Strength Rm	MPa(min)	650	650
%0,2 Yield Stress	MPa(min)	280	280
Elongation	%(min)	13	13
Hardness	HB(min)	150	150

Physical Properties

Density Specific	Heat Capacity	Electrical Conductivity	Thermal Conductivity
7.53 gm/cm^3 at 20°C	419.0 J/kg. °K at 20°C	0.049 Mega Siemens/ cm at 20°C	41.9 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	Fair	Not Recommendded	Good	Good	50

Related Specifications

DIN EN 1982	BS 1400	ASTM B505	ASTM B271
CC333G	AB2	C95500	C95500