



ARCOTECH

AL-510(CuSn5) ROLLED PRODUCTS

CHEMICAL COMPOSITION, %	
Cu+Sn+P	≥ 99.50
Sn	4.5-5.5
P	0.03-0.35
Zn	≤ 0.3

ALLOY DESIGNATIONS	
UNS	C51000
EN	CuSn5
JIS	C5102
BS	PB102

COIL SHEET SPECIFICATIONS

Thickness (mm)	0.10- 2.50
Width (mm) *	6.00 - 406
Inner Diameter (mm)	100-150-200-300-400-500
Coil Weight (Kg/mm width)	1.00 - 4.00
Sheet Length (m)	0.50 - 3.00

*Note: Min. and Max. width depends on thickness of the strip

CHARACTERISTICS

AL-510 is commonly known as Phosphor bronze of grade 2.

This provides an excellent combination of strength, excellent formability and hardness.

Good corrosion resistance with excellent soldering and brazing properties

MECHANICAL PROPERTIES

Temper		Hardness , HV Min.	Tensile Strength MPa	Elongation % Min.
Ann.	O	85	305-345	45
1/4 Hard	H01	110	345-470	35
1/2 Hard	H02	160	470-560	8
Hard	H04	180	560-630	4
Extra Hard	H06	200	≥630	--
Spring Hard	H08	215	≥670	--

PHYSICAL PROPERTIES

TYPICAL VALUES IN ANNEALED TEMPER AT 20° C

Density (g/cm ³)	Electrical Conductivity (% IACS)	Thermal conductivity (W/m.K)	Modulus of Elasticity (GPa)	Specific Heat (J/kg.K)
8.86	20	84	110	380

ARCOTECH LTD

181, Sector-3, Industrial growth Centre, Rewari, Haryana, India. Ph: 01284-264160/161, Website :www.arcotech.in



ARCOTECH

AL-510(CuSn5) ROLLED PRODUCTS

Fabrication Properties

Capacity Being Cold Worked	Excellent
Machinability	Less Suitable
Capacity for Being Electroplated	Excellent
Capacity for Being Hot Dip Tinned	Excellent
Soft Soldering	Excellent
Resistance Welding	Good
Gas Shielded Arc Welding	Good
Laser Welding	Good

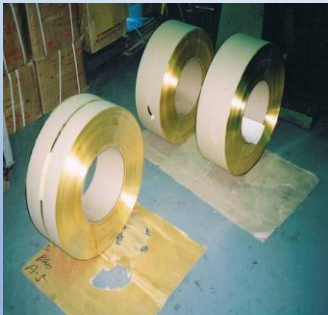
CORROSION RESISTANCE

AL-510 is Corrosion resistance to sea water and industrial atmosphere.

This grade is largely insensitive to stress corrosion cracking.

Packaging

Standard seaworthy packaging or as per specific requirements of customer.



TYPICAL APPLICATIONS

- Stamped parts
- Connectors
- Contact Springs
- Chemical hardware
- Clutch discs, diaphragms

AL-510 conform ROHS Directive

ARCOTECH LTD

181, Sector-3, Industrial growth Centre, Rewari, Haryana, India. Ph: 01284-264160/161, Website :www.arcotech.in



ARCOTECH

**AL-510(CuSn5)
ROLLED PRODUCTS**

This data is general technical product information. Binding technical features are subject to the contract.

ARCOTECH LTD

181, Sector-3, Industrial growth Centre, Rewari, Haryana, India. Ph: 01284-264160/161, Website :www.arcotech.in