



ARCOTECH

AL-521 (CuSn8) ROLLED PRODUCTS

| CHEMICAL COMPOSITION, % | |
|-------------------------|-----------|
| Cu+Sn+P | ≥ 99.50 |
| Sn | 7.0-9.0 |
| P | 0.03-0.35 |
| Zn | ≤ 0.3 |

| ALLOY DESIGNATIONS | |
|--------------------|--------|
| UNS | C52100 |
| EN | CuSn8 |
| JIS | C5212 |
| BS | PB104 |

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-521 is commonly known as Phosphor bronze of grade 4.

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 | 95 | 330-380 | 45 |
| 1/4 Hard | H01 | 100 | 380-480 | 35 |
| 1/2 Hard | H02 | 170 | 480-580 | 8 |
| Hard | H04 | 200 | 580-680 | 4 |
| Extra Hard | H06 | 215 | ≥680 | -- |
| Spring Hard | H08 | 220 | ≥710 | -- |

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) |
|---------------------------------|--|------------------------------------|-----------------------------------|---------------------------|
| 8.80 | 13 | 62 | 110 | 380 |

ARCOTECH LTD

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



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Fabrication Properties

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

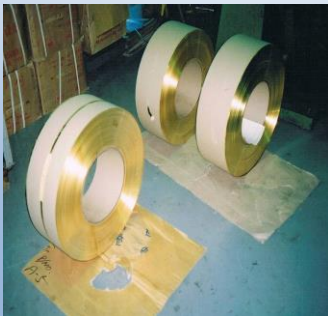
CORROSION RESISTANCE

AL-521 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
- Relay springs
- Slide bearings
- Chemical hardware
- Clutch discs, diaphragms

AL-521 conform ROHS Directive

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

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