



ARCOTECH

AL-95(CuZn5) ROLLED PRODUCTS

CHEMICAL COMPOSITION(%)

| | |
|----|-------------|
| Cu | 94.00-96.00 |
| Fe | ≤0.05 |
| Pb | ≤0.02 |
| Ni | ≤0.10 |
| Zn | REM |

ALLOY DESIGNATIONS

| | |
|-----|--------|
| UNS | C21000 |
| EN | CuZn5 |
| JIS | C2100 |
| BS | CZ125 |

COIL /SHEET SPECIFICATIONS

| | |
|---------------------------|-------------------------|
| Thickness (mm)* | 0.040- 4.0 |
| 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 – 4.00 |

*Note: 1. Min. and Max. width depends on thickness of the strip
2. Max. thickness depends on material temper.

CHARACTERISTICS

Commercial name is Gilding metal

AL-95 has very good cold forming characteristics and having slightly higher strength than pure copper.

AL- 95 has good welding and brazing properties as well as good resistance to corrosion, seasonal cracking and dezincification.

MECHANICAL PROPERTIES

| Temper | Hardness* , HV | Tensile Strength MPa | Yield Stress MPa | Elongation % | Grain Size | |
|-------------|-------------------|-------------------------|---------------------|--------------|------------|--------|
| Ann. | O | 50-70 | 230-270 | ≤130 | ≥35 | ≤0.050 |
| 1/2 Hard | H02 | 80-110 | 280-350 | ≥200 | ≥12 | ≤0.020 |
| Hard | H04 | ≥110 | ≥340 | ≥280 | ≥4 | ≤0.010 |

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 | 56.9 | 234 | 127 | 380 |

ARCOTECH LTD

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Fabrication Properties

| | |
|-----------------------------------|---------------|
| Capacity for 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 | Fair |

CORROSION RESISTANCE

AL-95 has very low sensitivity to stress corrosion cracking.

This alloy is not sensitive to dezincification that could occur in water with high chlorine content.

This alloy is largely resistance to industrial atmosphere but not resistance to oxidizing acids

Packaging

Standard seaworthy packaging or as per specific requirements of customer.



AL-95 conform ROHS Directive

TYPICAL APPLICATIONS

- Coins, Medals, Tokens
- Bullet jackets, Fuse and Primer caps, Firing pin supports
- Components in Electrical Industry, Connectors, AC Motors
- Jewelry, emblems, plaques

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

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