

## TECHNICAL DATA SHEET 25

### Specifications:

| Alloy    | Working Temperature (°C) | NF EN ISO 17672 | AWS A-5.8 | DIN 8513 | EN ISO 3677 |
|----------|--------------------------|-----------------|-----------|----------|-------------|
| Cu-Zn-Ag | 890                      | -               | -         | -        | -           |

### Characteristics:

**SUPER-CUPROX** is basically an alloy of copper and zinc with small addition of silicon, nickel and manganese intended to increase adhesion and to control Zn vaporization. As compare to Cuprox, there is addition of 1%Ag. This addition lowers its melting temperature while producing superior fluidity for good capillary action enabling strong joint. Bare rods are to be used or coated with our **POLYFLUX**. Braze Welding alloy with good flowing properties, Suitable for gap brazing. Being a high Zn content, it is recommended to keep the heating cycle to a minimum to prevent Zinc vaporisation.

### Applications:

**SUPER-CUPROX**, is recommended for brazing High stress joints, primarily used for joining of Steel to Steel or Carbide to Steel. This brazing alloy is also recommended for joining: Steels, Cast irons, Moulded steels, Nickel and Nickel alloys Coppers, Bronze, Brass, Nickel silver, Cupro-aluminium, with it solidus temperature is >900°C.

### Typical Chemical Compositions (%):

| Cu    | Zn      | Si   | Sn   | Mn   | Ni    | Ag   | Fe    | Al/As | Bi/ Sb /Cd | Pb     | Max. impurities |
|-------|---------|------|------|------|-------|------|-------|-------|------------|--------|-----------------|
| 58.00 | Balance | 0.20 | 0.40 | 0.25 | <0.20 | 1.00 | <0.25 | <0.01 | <0.01      | <0.025 | <0.20           |





### Typical Physical Properties:

| Coating Colour | Solidus (°C) | Liquidus (°C) | Density g/cm <sup>3</sup> | Elongation % | Tensile strength (MPa) | Electrical Conductivity (%IACS) | Electrical Resistivity (Micro-ohm-cm) |
|----------------|--------------|---------------|---------------------------|--------------|------------------------|---------------------------------|---------------------------------------|
| Customize      | 850          | 870           | 8.50                      | 30%          | 480                    | -                               | -                                     |

### Properties of Brazed Joint:

The properties of a brazed joint dependent upon numerous factors including base metal properties, joint design, metallurgical interactions between the base metal and the filler metal. This alloy needs a controlled quench (in excess of 300°C) to avoid the weakening of the brazed joint.

### Standard Size, Types & Heat Source Recommendations:

| Size (mm)                        | Type |        |      |          | Type   |  OXYACETYLENE |  INDUCTION |  AÉRO-PROPANE |  FOUR/OVEN |
|----------------------------------|------|--------|------|----------|--------|---|---|--|---|
|                                  | Bare | Coated | Coil | Preforms |        |   |   |  |   |
| 1.50,2.00,2.50,3.00, 4.00, 5.00, | √    | √      | √    | √        | Bare   | √   | √   | X  | √   |
|                                  |      |        |      |          | Coated | √   | X   | X  | √   |

Customised size other than above standard dimensions are solicited case to case basis

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