# **TALBRAS**<sup>®</sup> TECHNICAL DATASHEET



## **Brazing alloy BrazeTec S86**

Composition (% in weight)

| Ag | Cu   | Zn | Sn | Si | Р   | Mn | Ni | Other | ISO 17672 | EN<br>1044:1999 | ISO 3677 |
|----|------|----|----|----|-----|----|----|-------|-----------|-----------------|----------|
| -  | Rest | -  | 7  | -  | 6,8 | -  | -  | -     | CuP 386   | CP 302          | -        |

#### Technical data:

| Melting range (°C)   | 650-700    |  |  |
|--|------------|--|--|
| Working temperature (°C)                                   | 700        |  |  |
| Melting range according to DSC measurement (°C)            | -          |  |  |
| Min. brazing temperature (°C)                              | -          |  |  |
| Electrical conductibility (m/ $\Omega$ mm <sup>2</sup> )   | -          |  |  |
| Elongation %   | -          |  |  |
| Density (g/cm <sup>3</sup> )                               | 8          |  |  |
| Shear strength (MPa)                                       | -          |  |  |
| Tensile strength DIN EN 12797 (MPa)                        | Su Cu: 250 |  |  |
| Operating temperature of brazed joint (min/max) $\pm$ (°C) | -55/+150   |  |  |

#### Applications

Refrigeration, air conditioning and electrical industry, plumbing technology

#### **Operating conditions**

Copper based alloy, containing phosphorus and tin. Excellent flow, capillarity and mechanical strength characteristics. Used for joining copper and copper alloys. It is not allowed to use this alloy for joining steel, iron, nickel and cobalts, as it will be formed brittle phases in the joint. Brazing alloy not allowed to be used while operating in sulphur containing atmosphere, due to the credice corrosion phenomena.

#### **Recommended fluxes**

Due to its phosphorus content, it is not necessary to use an additional flux for brazing only copper to copper.

#### Heat sources

Flame, induction, furnace under protective atmosphere

### **Delivery forms**

Wire, rod, rings, preforms

#### Notes

BrazeTec S 86 alloy is brittle, due to the presence of tin, particularly when used in automated brazing process which may deform or bend wire. Therefore, it is recommended that the temperature is at least +10 ° C during use. In any case, the process of wire deformation and bending may be critical and must be carried out by qualified personal and with the appropriate machines.

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