TECHNICAL DATASHEET

Brazing alloy BrazeTec S86

Composition (% in weight)

<table>
<thead>
<tr>
<th>Ag</th>
<th>Cu</th>
<th>Zn</th>
<th>Sn</th>
<th>Si</th>
<th>P</th>
<th>Mn</th>
<th>Ni</th>
<th>Other</th>
<th>ISO 17672:2010</th>
<th>EN 1044:1999</th>
<th>ISO 3677</th>
</tr>
</thead>
<tbody>
<tr>
<td>-</td>
<td>Rest</td>
<td>7</td>
<td>6,8</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>CuP 386</td>
<td>CP 302</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

Technical data:

- Melting range (°C): 650-700
- Working temperature (°C): 700
- Melting range according to DSC measurement (°C): -
- Min. brazing temperature (°C): -
- Electrical conductivity (m/Ω mm²): -
- Elongation %: -
- Density (g/cm³): 8
- Shear strength (MPa): -
- Tensile strength DIN EN 12797 (MPa): Su Cu: 250
- Operating temperature of brazed joint (min/max) ± (°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.

The information reported in this document about our products and equipment as well as our systems and procedures are based on our research and our experience in the field of applied engineering and are merely recommendations. Italbras S.p.A. cannot foresee all circumstances in which these information and our products will be used, therefore the user must verify the suitability of our products and processes for the use or application intended by him on his own responsibility.
Italbras S.p.A. declines any liability for any loss, damage or injury howsoever arising (including any claim brought by third parties) as a result of the use of such information. Each warranty of suitability of our products and their use within the production processes of the user, must be agreed in written form. We reserve the right to make technical modifications to this document in the course of our product development.