Brazing alloy BrazeTec S5

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>5</td>
<td>89</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>6</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>CuP 281</td>
<td>-</td>
<td>B-Cu89PaAg 645/815</td>
</tr>
</tbody>
</table>

Technical data:

- **Melting range (°C)**: 645 - 815
- **Working temperature (°C)**: 710
- **Melting range according to DSC measurement (°C)**: -
- **Min. brazing temperature (°C)**: -
- **Electrical conductivity (m/Ω mm²)**: 5
- **Elongation %**: 8
- **Density (g/cm³)**: 8.2
- **Shear strength (MPa)**: -
- **Tensile strength DIN EN 12797 (MPa)**: with Cu:250
- **Operating temperature of brazed joint (min/max) ± (°C)**: -55/+150

Applications
Refrigeration, air conditioning and electrical industry, plumbing technology

Operating conditions
Silver based brazing alloy, containing phosphorus. Excellent flow, capillarity and mechanical strength characteristics. Used for joining copper and copper alloys. It is not allowed to use this alloy for joining steels, iron, nickel and cobalt 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 heating, resistance, furnace under protective atmosphere

Delivery forms
Wire, rods, ribbon, rings, preforms, powder

Notes
In refrigeration and air conditioning industries it can be used for service temperatures down to -50°C.