

Technical Data Sheet BrazeTec S 5

Standard

ISO 17672
(DIN EN 1044)

CuP 281a
(CP 104)

Nominal composition [wt.-%]

Permitted impurities max. [wt.-%]
Max. impurities [wt.-%]

Cu remainder; Ag 5; P6
Al 0,01; Bi 0,030; Cd <0,01; Pb 0,025; Zn 0,05; Zn + Cd 0,05
0,25

Technical data

Melting range acc. ISO 17672	approx. 645 - 815°C
Melting range acc. Measurement	approx. 645 – 835°C (DSC – measurement)
Brazing temperature	approx. 710°C (acc. ISO 17672:2010)
Density	approx. 8.2 g/cm ³
Tensile strength acc. DIN EN 12797 with Cu: min. 100 MPa	
Elongation	approx. 8 %
Electrical Conductivity	approx. 5.0 m/Ωmm ²
Operating temp. of brazed joint	max. 150 °C (without loss in strength)

Standard delivery forms*

Wire:	1,0 - 1,5 - 2,0 mm Ø
Rods:	1,0 - 1,5 - 2,0 mm Ø, 500 mm length
Ribbon:	0,1/ 0,2/ 0,3/ 0,4 mm thickness and 70 mm width
Preforms:	rings, shaped parts, sections, stamped and shaped parts, lamina, discs, perforated plates

*Other delivery forms upon request

Applications

BrazeTec S 5 is a phosphorous-containing brazing alloy with excellent flow characteristics. The brazing alloy is suitable for joining copper to copper or copper-based materials. Due to its phosphorous content, you have not to use an additional flux for brazing only copper to copper. This brazing alloy is not allowed to be used if sulfur containing medias may have contact with the joint during operating.

Further it is not allowed to use this alloy for joining steels (Fe) or materials containing iron, nickel cobalt as it will be formed brittle phases in the joint.

In refrigeration and air conditioning industries BrazeTec S 5 can be used for service temperatures down to -50°C.

It can be used for brazing with flame, with induction heating and in a furnace under protective atmospheres. Typical applications are found e.g. in the electric industry and for the refrigeration and air conditioning industry.

Details in product brochures or other advertisements about our products, equipment, plant and processes are based on our research and our experience in the field of applied engineering and are merely recommendations. It is not possible to infer any warranted qualities or warranted use from these details, unless they were expressly agreed as a warranted quality. We reserve the right to make technical modifications in the course of our product development.

The user must verify the suitability of our products and processes for the use or application intended by him on his own responsibility. This shall also apply to the protection of third party property rights as well as to applications and processes. The properties of samples and specimens are binding only if these have been expressly agreed to define the quality of the goods. Information on the quality and durability and other particulars are warranted only if these are agreed and designated as such. The specifications agreed with the user/purchaser in writing are relevant for the quality of the goods and if specifications have not been agreed in writing, the information contained in our technical data sheets, specifications or drawings.

Any additional or diverging agreements on the quality must be in writing. Any suitability of the product for the presupposed or customary use which supplements or diverges from the agreed quality is out of the question. Our General Conditions of Sale and Delivery shall apply; the current version is available at www.umicore-brasage.fr/.