Technical Data Sheet BrazeTec S 5

SAXONIA TECHNICAL MATERIALS

Standard

ISO 17672	CuP 281a
(DIN EN 1044)	*(CP 104)*

Nominal composition [wt.-%]	Cu remainder; Ag 5; P 6
Permitted impurities max. [wt.-%]	Al 0,01; Bi 0,030; Cd <0,01; Pb 0,025; Zn 0,05; Zn + Cd 0,05
Max. impurities [wt.-%]	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/cm³
Tensile strength acc. DIN EN 12797	with Cu: min. 100 MPa
Elongation	approx. 8 %
Electrical Conductivity	approx. 5.0 m/ Ωmm²
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 do not to need 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 brittle phases will be formed 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.