

TECHNICAL SHEET

Ag5CuP PLUS

Product name

Ag5CuP PLUS

Class of product

Silver-Copper-Phosphorous brazing alloy

Corresponding standards

ISO 17672	CuP 281
EN1044	CP 104
AWS A5.8-04	BCuP-3
DIN 8513	L-Ag5P

Nominal composition (weight %)

Ag:	5
P:	6
Cu:	Bal.

Physical and technical properties

Melting range (Solidus – Liquidus):	645 - 815 °C
Minimum brazing temperature (flow point):	710 °C
Density:	8,2 g/cm ³
Tensile Strength (filler metal):	55 kg/mm ²
Electrical conductivity:	9,6 % IACS
Recommended joint gap:	0,05 – 0,2 mm
Continuous service joint operating temp.:	-55 / + 150 °C
Max. short service joint operating temp.:	200 °C

Range of application

Ag5CuP PLUS is a stabilized silver-copper-phosphorous brazing alloy, with very good flow characteristics.

The alloys does not sparkle nor splashes and when overheated does not bubbles, resulting in joints free from porosity, safer and cleaner, and with enhanced mechanical and pressure tightness properties.

It can be used to join copper to copper or copper based base materials (e.g. bronzes / brasses).

The phosphorus contained in the alloy acts as a fluxing agent, so that it is not necessary to use an additional flux when brazing copper to copper; however when joining copper based materials (e.g. bronzes / brasses) a proper flux should be used.

Good service performance are obtained on joints subject to vibrations.

Ag5CuP PLUS should not be used on ferrous or nickel alloys, or alloys containing more than 10% of nickel, due to the formation of brittle intermetallic compounds which will cause failure of the joint.

Corrosion resistance of Ag5CuP PLUS is generally satisfactory, except when the joint is contact with sulphurous atmospheres (especially at high temperatures); the alloy should therefore not be used to join parts that could come into contact with sulphur containing medias.

Typical brazing processes include flame, induction and furnace brazing.

Tensile strength of joints brazed with Ag5CuP PLUS will generally exceed base metals strength.

Joint strength is however a function of various factors, such as: type of base metals to be joined, type of joint, joint clearance, brazing procedure, etc.

Typical applications are in plumbing, in the electric and electromechanic industry, and in the refrigeration and air-conditioning industry.

Characteristics Make-up

Rods

NOTE:

Information contained in this data sheet are based on the knowledge available to us at the date of last document revision and are believed to be accurate. Anyway, no data contained in this data sheet may be regarded as an assurance of any property of the product. We do not assume any responsibility for results obtained or damages occurred from the use of the information contained in this data sheet. We do not assume any responsibility for any un-proper use of the product. Users should verify the suitability and completeness of information with regard to specific use the product. As end use of product is not under our direct control, it is the user's responsibility to fully comply with applicable laws and regulations in safety and hygiene.