

TECHNICAL SHEET

Ag5CuP HP

STELLA
WELDING ALLOYS

Product name

Ag5CuP HP

Class of product

Silver-Copper-Phosphorous brazing alloy

Corresponding standards

ISO 17672 CuP 282

EN1044 ----

AWS A5.8-04 BCuP-7

Nominal composition (weight %)

Ag: 5

P: 6,75

Cu: Bal.

Physical and technical properties

Melting range (Solidus – Liquidus): 643 - 771 °C

Minimum brazing temperature (flow point): 710 °C

Density: 8,2 g/cm³

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 HP is a silver-copper-phosphorous brazing alloy, with excellent flow characteristics.

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.

Ag5CuP HP 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 HP 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 HP 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: Ø 1,5 ⇨ 4,0 mm ; □ 1,5 ⇨ 4,0 mm Length: 500 / 1.000 mm

Wires: Ø 0,7 ⇨ 3,0 mm Spooled and coiled

Rings

Preforms from Wire and from Strip

Pastes & Powders

Other dimensions are available upon request.

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.