TECHNICAL SHEET
Ag6CuP LP

STELLA WELDING ALLOYS

Product name
Ag6CuP LP

Class of product
Silver-Copper-Phosphorous brazing alloy

Corresponding standards

ISO 17672	-----
EN1044	-----
AWS A5.8-04	-----
DIN 8513	-----

Nominal composition (weight %)

Ag:	6
Cu:	Bal.
P:	6,1 – 6,3

Physical and technical properties

Melting range (Solidus – Liquidus):	643 - 800 °C
Minimum brazing temperature (flow point):	720 °C
Density:	8,3 g/cm^3
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

Ag6CuP LP is a silver-copper-phosphorous brazing alloy, with very good 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.

Ag6CuP LP 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 Ag6CuP LP 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 and induction brazing.

Tensile strength of joints brazed with Ag6CuP LP 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 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

Other dimensions are available upon request.

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