

TECHNICAL SHEET

CuP7



Product name

CuP7

Class of product

Copper-Phosphorous brazing alloy

Corresponding standards

DIN8513 L-CuP7

EN1044 CP 202

AWS A5.8-04 BCuP-2

Nominal composition (weight %)

Cu: 93

P: 7

Physical characteristics

Melting range (Solids – Liquids): 710 - 800 °C

Brazing temperature: ~ 730 °C

Density: 8,1 g/cm³

Tensile Strength: 58 kg / mm²

Range of application:

CuP7 is a copper-phosphorous brazing alloy, with very good flow characteristics.

CuP7 is extremely fluid at brazing temperature and will penetrate joints with very small clearances. Optimal joint clearances are between 0,025 and 0,075 mm.

Melting of the alloy is virtually complete at approx 730 °C: best results are obtained when brazing slightly above this temperature.

CuP7 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.

CuP7 should not be used when joining parts that could come into contact in operation with sculpture containing medias, and should not be used on ferrous or nickel alloys, due to the formation of brittle intermetallic compounds which will cause failure of the joint.

Typical brazing processes include flame, induction and furnace brazing.

Typical applications are in the refrigeration and air conditioning industries, for joining copper to copper on vibration-free joints; it is very effective for joining tight-fitting copper pipes and tubing.

Characteristics Make-up:

Rods: Ø 1,5 _ 4,0 mm; I 1,5 _ 4,0 mm Length: 500 / 1.000 mm

Wires: Ø 0,5 _ 3,0 mm (spooled and coiled)

Rings

Pastes & Powders

Other dimensions are available upon request

The above data are subject to change without notice by Spring.

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