TECHNICAL SHEET

Cu59ZnSnMn

SPRING WELDING ALLOYS

Product name

Cu59ZnSnMn

Class of product

Copper-Zinc brazing alloy

Corresponding standards

DIN8513 ---

EN1044 CU 306

AWS A5.8-04 ---

Nominal composition (weight %)

Cu: 59

Zn: Bal

Sn: 0,5 – 1,5

Si: 0,1 – 0,5

Mn: 0,2 – 1,0

Ni: 0,2 – 1,5

Physical characteristics

Melting range (Solids – Liquids): 870 - 890 °C

Density: 8,4 g/cm3

Tensile Strength: 45 kg / mm2

Range of application:

Cu59ZnSnMn is a copper-zinc brazing alloy, with little additions of silicon, tin and manganese to control zinc vaporization and to promote flow properties.

It is used to join steels, cast irons, copper and copper alloys, nickel and nickel based alloys and also stainless steel when corrosion resistance is not a major requirement.

When brazing in an oxidizing environment the use of a proper high-temp flux, as BR1 is necessary.

Cu59ZnSnMn is often used is the oxy-fuel gas braze-welding process, with vaporized liquid flux spread through the torch flame.

Brazing techniques range from flame, to induction, to oven.

Because of the high zinc content it is recommended to keep the heating cycle to a minimum to prevent zinc vaporization.

Typical applications are found in the tubular constructions industry (metal furniture, bicycle frames, radiators & towel warmers etc.), mining tools, heating and cooling systems, etc.

Characteristics Make-up:

Rods: Ø 1,5 _ 4,0 mm Length: 500 / 1.000 mm
Flux Coated Rods: Ø 1,5 _ 4,0 mm
Micro-Coated Rods: Ø 1,5 – 2,0 – 3,0 mm (micro-notches along the rod, filled with flux)
Wires: Ø 1,5 _ 4,0 mm (spooled and coiled)
Rings & Performs from wire
Powder and Paste
Other dimensions are available upon request

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

SPRING WELDING ALLOYS

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