

TECHNICAL SHEET

CuMn13Al8

SPRING
WELDING ALLOYS

Product name

CuMn13Al8

Class of product

Cu-alloy wire for MIG / TIG welding and weld-surfacing

Corresponding standards

DIN1733 SG-CuMn13Al7

Werkstoff nr. 2.1367

BS 2901P.3 C 22

AWS A5.7 ERCuMnNiAl

Composition (weight %)

Cu: balance

Al: 7,00 – 8,50

Ni: 1,50 – 3,00

Fe: 2,00 – 4,00

Mn: 11,00 – 14,00

Others: 0,5 max

Physical characteristics

Melting range: 945 - 985 °C

Density: 7,4 g/cm³

Thermal conductivity: 30 W/m · K

Coeff. of linear mean expansion (20-300°C): $21,5 \cdot 10^{-6}$ 1/K

Electric conductivity: 3 – 5 m/Ω · mm²

Resistively: 0,20 – 0,333 Ω·mm²/mm

Mechanical Properties of welded joint (not treated, standard data)

Tensile strength: 900 N/mm²

Elongation 10 %

Brielle Hardness 290 HB 2,5/62,5

Notched bar impact test 180 A_v(J)

Range of application:

Copper-aluminum alloy, with high manganese content, to be used for joining, surfacing and build-up on brass, bronze, copper and normal steels.

High mechanical strength, low friction, and high resistance to corrosion, cavitations, erosion, friction and also

sea-water proof. Typical applications are in the shipbuilding and chemical industry, as well as in the surfacing of bearings, slide rails, raceways, dies, ship propellers, valves, pumps shafts,

turbine blades, etc.

Recommendation:

Applicable inert gas: Argon 4.8/5.0/5.3/5.6/6.0

Characteristics Make-up:

Rods

Wires

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

SPRING WELDING ALLOYS

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