

TECHNICAL SHEET

CuAl9Fe

Product name

CuAl9Fe

Class of product

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

Corresponding standards

ISO 24373 Cu 6180 CuAl10Fe
DIN 1733 SG-CuAl10Fe
AWS A5.7-84 ER CuAl-A2

Nominal composition (weight %)

Cu: balance
Al: 9,00 – 9,50
Fe: 1,00 – 1,30
Others: 0,5 max

Physical and technical properties

Melting range: 1.030 – 1.040 °C
Density: 7,6 g/cm³
Thermal conductivity: 55 W/m · K
Coeff. of linear mean expansion (20-300°C): 16,5 · 10⁻⁶ 1/K
Electric conductivity: 6,5 – 7,5 m/Ω·mm²
Resistivity: 0,154 Ω·mm²/mm

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

Tensile strength: 500 N/mm²
Elongation 35 %
Brinell Hardness 140 HB 2,5/62,5
Notched bar impact test 95 A_v(J)

Applicable inert gas

Argon 4.8/5.0/5.3/5.6/6.0

Range of application

Copper-Aluminium filler metal, resistant to seawater and to corrosion.
Suitable for joining of and for overlay welding on aluminium bronzes and on galvanized steel sheets.
Also suitable for weld surfacing on ferritic-pearlitic steels and on cast iron.
High resistance to wear and abrasion.
Typical applications: galvanized steel sheets, solenoid valves, shipbuilding, bearing surfaces, bearing houses.

Characteristics make-up

Rods: Ø 2,0 ⇒ 6,0 mm Length: 1.000 mm
Wires: Ø 0,8 – 1,0 – 1,2 – 1,6 – 2,4 mm

Other dimensions are available upon request.

NOTE:

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