

TECHNICAL SHEET

CuSi3



Product name

CuSi3

Class of product

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

Corresponding standards

EN1460 CuSi3Mn1

DIN1733 SG-CuSi3

Werkstoff nr. 2.1461

BS 2901P.3 C 9

AWS A5.7 ERCuSi-A

Composition (weight %)

Cu: balance

Mn: 0,75 – 0,95

Si: 2,80 – 2,95

Other: 0,5 max

Physical characteristics

Melting range: 965 - 1035 °C

Density: 8,5 g/cm³

Thermal conductivity: 35 W/m . K

Coeff. of linear mean expansion (20-300°C): 18,1 . 10⁻⁶ 1/K

Electric conductivity: 3,5 – 4,0 m/ _mm²

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

Tensile strength: 35 kg/mm²_

Elongation 40 %

Brielle Hardness 80 HB 2,5/62,5

Notched bar impact test 60 J

Range of application:

Ideal for joining of galvanized metal sheets.

For MIG/TIG welding and weld-surfacing on low-alloyed copper alloys and on CuZn alloys.

Also for wear-resistant surfacing on low and unalloyed steel and on cast iron.

For welding of metal sheets thicker than 3,0 mm preheating to approx 250-300 °C is recommended.

For MIG weld-surfacing on big pieces preheating to approx 250 °C is recommended.

For layered weld-surfacing on ferrous base metals pulsed arc welding is recommended.

Recommendation

Applicable inert gas: Argon

Characteristics Make-up:

Rods: Ø 1,6 > 6,0 mm Length: 1.000 mm

Wires: Ø 0,8 – 1,0 – 1,2 – 1,6 – 2,4 mm (on spools D300 and wire basket spools)

Other dimensions are available upon request

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

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