

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

Nominal composition (weight %)

Cu: balance
Mn: 0,75 – 0,95
Si: 2,80 – 2,95
Other: 0,5 max

Physical and technical properties

Melting range:	965 - 1035 °C
Density:	8,5 g/cm ³
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/Ω mm ²

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

Tensile strength:	35 kg/mm ²
Elongation	40 %
Brinell Hardness	80 HB 2,5/62,5
Notched bar impact test	60 J

Applicable inert gas

Argon

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.

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

NOTE:

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