

# TECHNICAL SHEET



## CuSn12

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### Product name

CuSn12

### Class of product

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

### Corresponding standards

DIN1733 SG-CuSn12

Werkstoff nr. 2.1056

BS 2901P.3 C 27

AWS A5.7 ---

### Composition (weight %)

Cu: balance

Sn: 12,0 – 13,0

P: 0,15 – 0,25

Others: 0,5 max

### Physical characteristics

Melting range: 825 - 990 °C

Density: 8,6 g/cm<sup>3</sup>

Thermal conductivity: 40 - 50 W/m·K

Coeff. of linear mean expansion (20-300°C):  $18,5 \cdot 10^{-6}$  1/K

Electric conductivity: 3 - 5 m/Ω·mm<sup>2</sup>

Resistivity: 0,20 – 0,333 Ω·mm<sup>2</sup>/mm

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

Tensile strength: 320 N/mm<sup>2</sup>

Elongation 5 %

Brielle Hardness 120 HB 2,5/62,5

Notched bar impact test 8 A<sub>v</sub> (J)

### Range of application:

CuSn12 is a copper-tin alloy, with high tin content and is suitable for all welding procedures.

The material exhibits high hardness, similar to cast bronzes, and is often used for wear-resistance surfacing, as well as joining and repair welding of bronzes.

Also particularly suitable for oven brazing.

### Applicable inert gas:

Argon 4.8/5.0/5.3/5.6/6.0

**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 (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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