

With the **bercoweld**® S2 wire electrode, welding and brazing processes in automotive engineering can be significantly optimized. The copper solder wire offers even better functionalities such as optimized flow properties, better gap bridging, and higher processing speed.

This filler material has been specially designed for use on coated sheets for the automotive industry. Good flowing weld pool, no tendency for pore or splatter formation are only some of the advantages. Suitable for welding Cu and Cu alloys as well as unalloyed and low-alloyed steels and cast iron.

MIG: Pulsed power welding is recommended.

TIG: Preheating to about 250° - 300 °C is recommended for sheet thicknesses of more than 3.00 mm.

## Standardization and composition

<b>ISO 24373</b>	CuSi2Mn1 Cu6511
<b>Cu</b>	balance
<b>Si</b>	1.70 - 1.90
<b>P</b>	0.008 - 0.012
<b>Mn</b>	0.90 - 1.10
<b>Sn</b>	0.17 - 0.25

## Physical properties

<b>Density (kg/dm³)</b>	8.7
<b>Melting range (°C)</b>	1030 - 1050
<b>Thermal conductivity (W / m x K)</b>	40
<b>Coefficient of linear mean expansion (10<sup>-6</sup>/K)</b>	18.1
<b>Electric conductivity (m / Ω x mm²)</b>	4.7 - 5.3
<b>Resistivity (Ω x mm² / m)</b>	0.188 - 0.213

## Mechanical properties of the weld joint (standard data)

<b>Heat treatment</b>	non treated
<b>Tensile strength (MPa)</b>	285
<b>Elongation (%)</b>	45
<b>Brinell hardness (HB 2.5/62.5)</b>	62
<b>Notched bar impact test (Av (J))</b>	75

## Delivery options

<b>Make-up</b>	<b>Weight/Length</b>	<b>Dimension</b>
<b>Drum / bedradox</b>	175 - 200 kg	0.80 - 1.60 mm
<b>SD300 / BS300 / K300</b>	12 - 15 kg	0.80 - 2.40 mm
<b>H500 / H560 / H760</b>	150 - 250 kg	0.80 - 2.40 mm
<b>Coils</b>	25 - 100 kg	1.60 - 6.00 mm
<b>Rods</b>	250 - 3000 mm	1.60 - 6.00 mm