

<b>International standards</b>	Material No.	2.1363
	DIN 1733	EL-CuMn2
	AWS A 5.6	ECu

**Approvals** ---

**Characteristics and typical applications** CARBO Cu B is high purity copper electrode with a basic coating for joining and surfacing copper and copper alloys  
The deposit free of porosity and cracks. The alloy has a high strength and an excellent electrical conductivity.  
Copper vessels and tanks, commutator rigs, electrical connector and contactor parts

**Base materials** 2.0040 2.0070 2.0076 2.0090

**Recommendations for welding and heat treatment** Preheat and weld smoothly. Because of high thermal conductivity pre-heat copper at 300°C-600°C, copper alloys a little lower.  
Cooling rate should be controlled by insulating or lagging.  
Deformation by expansion and contraction is large and distortion cracks by distortion may occur.  
In case of joining dissimilar materials such as copper alloys to mild steel, try to prevent penetration of iron as little as possible.  
Oxidation is remarkable so that porosity occurs easily.

<b>Mechanical properties of all-weld metal ( typical values)</b>	<b>Tensile strength</b> R <sub>m</sub> N/mm <sup>2</sup>	<b>Elongation</b> A <sub>5</sub> %	<b>Hardness</b> HB	<b>Electrical Conductivity</b> [S · m / mm <sup>2</sup> ]	<b>Heat conductivity</b> [W / (m ·K)]
	200	25	ca..40	15-20	120-145

<b>Weld metal analysis (typical, wt %)</b>	<b>Cu</b>	<b>Mn</b>	<b>Sn</b>
	Base	2,5	0,8

**Current** = +

**Welding positions** PA, PB, PC, PD, PE, PF

**Rebaking** 1 h, 90° C + / - 10° C ( if necessary)

Dia./Length	Amperage (A)	Pcs./ packet	Pcs./ carton	kg / 1000	kg / packet	kg / carton
2,5 x 300	80 - 110	287	1148	17,4	5,0	20,0
3,2 x 350	100 - 130	169	676	29,6	5,0	20,0
4,0 x 450	130 - 170	136	544	44,2	6,0	24,0
5,0 x 450	170 - 200	67	268	90,1	6,0	24,0

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