



# Selectarc Cu110

Copper Electrode

## Classification

AWS A5.6 : ~E Cu                      DIN 1733 : EL-CuMn2  
 UNS : ~W60189                      Material N° : 2.1363

## Description & Applications

Basic coated electrode for welding different pure copper grades and copper-nickel alloys in some cases too. Also used for dissimilar joints and surfacing. The deposit is free of porosity and gives a tensile strength similar to that of most commercial copper types.

**Main applications:** Joining of electrical copper electrodes used in furnaces, for joining copper to steel bars in electrically heated drive ways.

### Base materials

UNS	DIN	Material N°
C10100	OF-Cu	2.0040
C11000	E-Cu	2.0060
C10300	SE-Cu	2.0070
	SW-Cu	2.0076
C11020	F-Cu	2.0080
C12200	SF-Cu	2.0090

## Typical Weld Metal Composition ( % )

Mn	Sn	Fe	Cu
1.5	0.8	0.1	Rem.

## All Weld Metal Mechanical Properties

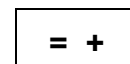
R <sub>m</sub> ( MPa )	A <sub>5</sub> ( % )	Hardness	Electrical conductivity
~200	35	~60 HB	15-20 S*m/mm <sup>2</sup>

## Welding Current & Instructions

Electrode	ØxL ( mm )	2,5x350	3,2x350	4,0x350
Current	( A )	70-90	90-120	110-140

Redrying 2 h at 150 °C. Joints to weld must be clean. Guide electrodes with a slight declination (10-20° inclined in direction of travel). Weld with a short arc. To improve degassing of the deposit, adopt a low welding speed. Material up to 5 mm can be welded without preheating, when using the adopted electrode diameter. Heavier sections have to be preheated up to about 500°C.

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