

# CARBO ALBRO AC

<b>International standards</b>	Material No.	2.0926
	DIN 1733	EL-CuAl9
	AWS A 5.6	E CuAl-A2
	AWS A 5.13	E CuAl-A2
	DIN 8555	E 31-UM-150-CN

## Typical applications and characteristics

Carbo Albro AC is a basic-graphite coated electrode for joining aluminium bronzes (up to 10 % Al) as well as wear-resisting and corrosion-proof surfacing on steel, cast steel, and cast iron, especially on work-pieces which are subject to erosive wear.

The electrode is also suitable for filling up casting defects on aluminium bronze castings, for buffer layers between copper and nickel alloys and can also be used as bearing material for high-pressure load. The mechanical properties of the weld deposit are very good; it is acid-, seawater- and erosion resistant.

This electrode can be used on shaped components and wearing parts as well as slide bearings and slide tracks.

## Welding instructions

Exempt weld zones from impurities like grease, oil or oxides. The seam flanks should shine metallic bright. An included angle of 90° should be welded on thick sheets. Weld preferably in horizontal position (PA) driving the electrode in vertical direction. Weld with a short arc, low heat input and at high speed.

Heavy work-pieces require preheating to abt. 200° C.

## Operating temperature ---

<b>Base materials</b>	2.0916 CuAl 5	2.0928 G- CuAl 9
	2.0920 CuAl 8	3.0460 CuZn 20 A2

## Mechanical properties of all-weld metal

( typical values )

Tensile strength $R_m$ N/mm <sup>2</sup>	Yield strength $R_{p0,2}$ N/mm <sup>2</sup>	Elongation $A_5$ %	Hardness HB
420	180	> 20	approx. 180
Electr. conductivity	Thermal conductivity	Melting temp.	Density
8 m / $\Omega^*$ mm <sup>2</sup>	0.16 cal / cm <sup>*</sup> sec <sup>*</sup> °C	1030° C	7.7 g / mm <sup>2</sup>

## Weld metal analysis (typical, wt. %)

Al	Mn	Fe	Cu
8	0,5	< 0,5	Bal.

**Current** = + / ~ 50 V      **Welding positions** PA, PB, PF

**Rebaking** 1 h, 130 °C + / - 10 °C ( if required )

Dia./Length	Amperage (A)	Pcs./packet	Pcs./carton	kg/1000	kg/packet	kg/carton
2,5 x 350	50 - 70	305	1220	16,4	5,0	20,0
3,2 x 350	90 - 110	181	722	27,7	5,0	20,0
4,0 x 350	130 - 150	119	476	42,0	5,0	20,0
5,0 x 350	150 - 200	76	304	65,7	5,0	20,0