Elecu® BCuAl

Cu-based covered electrode

Classification

AWS A5.6	:ECuAl-A2
DIN 1733	:E L-CuNi 30Mn

Temperature Range

Pressure parts

Oxidation resistance

General description

Base electrode for welding of aluminum alloys, and also wearproof and corrosion-resistant coverings on steel, cast steel, and cast iron, especially on blanks which are subject to erosive wear. The electrode is also suitable for filling of defects of casting on aluminum (bronze casting), can be used as the bearing material for the high pressure loading. Mechanical properties of deposit are very good, with acid environments, in sea water, erosive resistance. This electrode can be used as a component in the worn-out details, for example, as bearings of sliding and slide tracks.

Welding positions

ISO/ASME	PA/1G	PB/2F	PC/2G

Current type

DC electr. +

Chemical composition (w%),typical,all weld metal

Al	Mn	Fe	Cu	Si
7.5	0.5	<0.5	91.0	0.5

Mechanical properties,all weld metal

		Condition	0.2% Yield Strength (N/mm^2)	Tensile Strength (N/mm^2)	Elongation (%)	Hardness HB
Required	DIN 1733	AW	min 150	390-450	max 45	130
Typical values after welding		AW	400	660	15	150

Packaging, available sizes and identification

	Diameter (mm)	2.5	3.2	4.0	5.0
	Length (mm)	300	350	350	450
Unit:	Pieces / unit (nominal)	125	77	50	33
Box	Net weight/unit (kg)	2.5	2.5	2.5	2.5

Identification Imprint: Elecu® BCuAl Tip colour:

Eleni® BCuAl : rev.EN 20

Materials to be welded

Material	W.Nr.
CuAl5	2.0916
G-CuAl9	2.0928
CuAl8	2.0920
CuZn20A2	3.0460

Calculation data

Size Diam.x length (mm)	Current range type (A)	Current	Arc time - per electrode at max.current - (s)*	Energy E (kJ)	Dep.rate H (kg/h)	Weight/ 1000 pcs. (kg)	Electrodes/ kg weldmetal (pcs)	kg Electrodes/ kg weldmetal (1/N)
2.5x300	50-70	DC+				19.9		
3.2x350	90-110	DC+				32.9		
4.0x350	130-150	DC+				49.2		
5.0x450	150-200	DC+				77.1		

* stub end = 35 mm

Application advice

Annealing for 2h at 200-250°C. Joints before welding must be clean from oil and cracks.
Welding must be with a short arc and without high power.