

Lastek 64

Aluminium bronze electrode

CLASSIFICATION

DIN 1733T1 : EL-CuAl9Ni2

AWS A5.6 : ~E CuNiAl

GENERAL DESCRIPTION

Special alloy for joining or surfacing of aluminium bronze.
 Very high corrosion, erosion and cavitation resistance in seawater.
 Suitable for surfacing carbon steel, alloy steel, cast iron and bronze (metal to metal friction).
 Surfacing of ship-propellers in aluminium-bronze (with Ni- and/or Mn).
 Porous free deposit.

APPLICATIONS

Blades of centrifugal pumps, pump shafts, pump casings, elbows in pipe lines exposed to cavitation, valves, parts of mixing equipment, ship propellers.
 Joining of plates and pipes in ship-construction, chemical, petrochemical and food industry.
 Repair of casting flaws in aluminium bronze pieces and art castings.

Hardness: 170 HB / Work hardening up to 250 HB

CHEMICAL COMPOSITION (%) (Typical values, all weld metal)

Mn : 0.50 - 1.50	Fe : 1.00 - 2.50	Ni : 2.00 - 3.00	Al : 8.50 - 9.50	Cu : Balance
-------------------------	-------------------------	-------------------------	-------------------------	---------------------

MECHANICAL PROPERTIES (Typical values, all weld metal)

Yield Strength N/mm ²	Tensile Strength N/mm ²	Elongation 5d (%)	Impact Strength Charpy V notch (ISO-V)
	≥ 590 MPa	≥ 20%	

GENERAL INFORMATION

Welding positions PA, PB, PC

Shielding gas NA

Packing 5 kg in a plastic box

Polarity DC, reverse polarity (electrode positive)

Diameter (mm) 2.5 3.2 4.0

Length (mm) 350 350 350

Approx. current (A) 40 - 80 90 - 110 110 - 150

Tips & tricks

Clean all parts from oil and grease.
 Joining copper alloys to steel: first butter the steel side at lowest amperage; then bridge the gap.
 Weld with short arc; use a weaving motion for large surfaces.
 Keep electrodes dry.
 Copper alloys to be preheated from 100 °C to 300 °C (210 - 570 °F). (Aluminium bronze with less than 12 % Al: limit the preheat temperature to max. 160 °C (320 °F)).
 Surfacing on steel: amperage as low as possible; use stringer beads.

The information in this document is based on intensive tests and is accurate to the best of our knowledge. Do note that these values are only typical values for tests in accordance to prescribed standards. The suitability of the product should always be confirmed by qualification tests before use in any application. The information can be changed without previous notice.