

Repair electrode

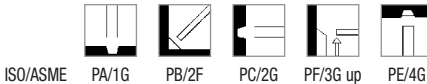
Classification

AWS A5.6-84 : ECuMnNiAl

General description

Basic coated Al-bronze stick electrode, alloyed with 12% Mn for porosity free welding of Mn and Ni containing copper-aluminium alloys. Also suitable for hot crack free cladding of mild steel as well as cast iron. Cladding of slide valves, valve seats, stirrers, ship shafts and propellers.

Welding positions



ISO/ASME PA/1G PB/2F PC/2G PF/3G up PE/4G

Current type

DC electr. +

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

Mn	Si	Al	Fe	Ni+Co	Cu
12	0.3	6.5	2	2	bal.

Mechanical properties, all weld metal

Condition	Condition	0.2% Proof strength (N/mm ²)	Tensile strength (N/mm ²)	Elongation (%)	Hardness HB10/1000
Required: AWS A5.6-84		not required	min. 520	min. 15	160-200
Typical values	AW	450	650	15	180

Packaging, available sizes and identification

	Diameter (mm)	3.2	4.0
	Length (mm)	350	350
Unit: PE tube	Pieces / unit (nominal)	93	83
	Net weight unit (kg)	2.5	3.2

Identification

Imprint: RepTec Cu 8

Tip colour: gold

RepTec Cu 8: rev. EN 15

Materials to be welded

Material grades such as:

- Cu Al9 Mn2
- G-Cu Al8 Mn
- G-Al10 Ni5 Fe 4
- G-Cu Al10 Ni
- G-Cu Al11 Ni6 Fe
- G-Cu Al11 Ni
- Cu Be 1.7*
- Cu Be 2*

* in case there are no special requirements to strength

Calculation data

Sizes Diam. x length (mm)	Current range (A)	Current type	Arc time - per electrode at max. current - (s)*	Energy E(kJ)	Dep.rate - H(kg/h)	Weight/ 1000 pcs. (kg)	Electrodes/ kg weldmetal B	kg Electrodes/ kg weldmetal 1/N
3.2 x 350	60 - 100	-	-	-	-	26.7	-	-
4.0 x 350	80 - 130	-	-	-	-	39.3	-	-

* stub end 35mm

Application advice

Preheating is only needed with larger work pieces. During the cladding of steel, avoid too much base metal dilution by directing the arc on to the previously passes.

Welding with low current.