

GEMET 715



IDENTIFICATION : ELECTRODE FOR WELDING STANDARD ALUMINIUM BRONZE ALLOYS AND VARIOUS DISSIMILAR METALS.

CLASSIFICATION : AWS/SFA 5.6 : E Cu Al-A2, DIN 1733:EL - CuAl 9

DESCRIPTION :

Medium coated basic type electrode depositing plain 8% aluminum bronze for welding similar 5-11% Al alloys. The electrode can be used to weld range of copper-based alloys to themselves or to mild steel, cast irons and iron- base alloys. However, alloys containing chromium (stainless steels) should be avoided since chromium pick-up may cause embrittlement and cracking. For such applications special buttering procedures should be used. The electrode can be used to overlay CMn steels and cast irons to give wear and corrosion resistant bearing surfaces.

TYPICAL APPLICATIONS :

Aluminum Bronzes: UNS C61400, BS CA 101-103, alloy D and others. Beryllium copper (Cu+0.5-2%Be). Closest approximation to strength. High zinc brasses and manganese bronzes (20-45%Zn). Colour similar to brasses. Silicon bronzes (1-3.5%Si)-see also 97CuSi(DS 15-07A). Corrosion resistant and spark resistant pumps, castings, machinery parts, heat exchangers for offshore, marine equipment.

Preheat Temperatures :

- For welding of brasses : Preheat temp 250-400°C.
- Cast iron : 150-250°C – and slow cooling
- Silicon bronzes : No preheat, keep interpars temp below 70°C.
- Redrying Temperature : 250-300°C / 2 hrs

COMPOSITION OF THE WIRE (%)

Al	Mn	Fe	Si	Pb	Cu
6.5-9.0	1.0 max	0.5-5.0	1.5 max	0.02 max	Remainder

ALL WELD MECHANICAL PROPERTIES (TYPICAL VALUES) :

Tensile Strength N/mm ²	0.2% Proof Stress N/mm ²	Elongation (%) (L = 4d)	Hardness HV40
490	235	20%	125

RECOMMENDED CURRENT AND PACKING DATA :

SIZE (mm)	LENGTH	AMPS DC(+)	PACKING / BOX (Kg)
2.5	350	60-90	2 x 5 = 10
3.15/3.20	350	90-130	2 x 5 = 10
4.0	350	120-160	2 x 5 = 10