

# GEMET 715

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

## IDENTIFICATION

Gemet 715, ECu Al-A2

## CLASSIFICATION

AWS/SFA 5.6: ECu 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.

## WELD METAL ANALYSIS (RANGE) %

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

## MECHANICAL PROPERTIES (RANGE)

TS (N/mm <sup>2</sup> )	PS (N/mm <sup>2</sup> )	EL (%) (L=4D)	Hardness HV40
490 min	235 min	20%	125

## 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

## PACKING PARAMETERS

# GWELD

Size (mm)	Length (mm)	Current Condition DC (+) Amps	Packing / Packet (kg)	Packing / Box (kg)
2.5	350	60 - 90	2	2 x 5 = 10
3.15 / 3.20	350	90 - 130	2	2 x 5 = 10
4	350	120 - 160	2	2 x 5 = 10