

CORBRONZE 100-G

CLASSIFICATION

DIN 8555: MSG31-GF-150-C

EN 14700: T Cu1

DESCRIPTION

- Aluminium bronze alloy, resistant to corrosion in air to 300°C and to marine corrosion.
- Good resistance to metal-metal abrasion under heavy compressive stresses.
- Retains its mechanical properties to 200°C.
- Deposit not susceptible to cracking.

APPLICATIONS

- May be used both for assembly work and for surfacing.
- Suitable for joining copper base alloys to each other and to iron base.
- Used for constructing machines, chemical installations and in marine constructions.
- Surfacing of slides and slideways, roller guides, valves and pumps.
- Defect repairs in aluminium bronze castings.
- Underlayer for more highly alloyed CORBRONZES (300 and 400 series) where there is a risk of cracking.

TYPICAL ALL-WELD METAL ANALYSIS

Al	Fe	Mn	Ni	Cu
8.00	0.50	0.50	0.40	Base

WELD DEPOSIT MECHANICAL PROPERTIES

0.2% Proof Stress	Ultimate tensile strength	Elongation	Hardness*	Density
230 MPa	430 MPa	20%	100 – 150 HB	7.8 g/cm ³

*Hardness in 3 layers as welded

SHIELDING GAS

ISO 14175: I1 (pure argon)

I3 (Ar + 30% He)

OPERATING CONDITIONS

Current type

Gas flow rate

Recovery

Current type		Gas flow rate		Recovery	
DC(+) continuous or pulsed		12 - 20 l/min.		90 %	
Diameter [mm]	Intensity [A]	Voltage [V]		Stick-out [mm]	
	Range	Pulsed	Continuous	Range	Optimum
1.2	150 - 320	22 - 25	27 - 31	10 - 20	15
1.6	200 - 350	22 - 25	27 - 31	10 - 20	15

Stringer or weaved beads

Can be welded gun leading or gun trailing

The use of pulsed current is recommended for improved wetting and bead appearance

Higher currents and voltages can be used, but cause increased element burn-off (particularly Al) and dilution, leading to lower hardness levels.

WELDING POSITIONS

EN ISO 6947 : PA, PB

ASME IX: 1G, 1F, 2F

PACKAGING

Diameter	1.2 mm		1.6 mm
Spool type	EN ISO 544: BS300	EN ISO 544: BS300	EN ISO 544: B450
Weight	15 kg	15 kg	25 kg