

CORBRONZE 301-G

CLASSIFICATION

DIN 8555: MSG31-GF-300-C

EN 14700: T Cu1

DESCRIPTION

- Copper-aluminium hardfacing alloy with additions of Fe, Ni and Mn to improve the mechanical properties.
- Good resistance to abrasion and corrosion.
- Temperature resistance up to 300°C.

APPLICATIONS

Used for pistons for injection of aluminium under pressure, valve seats, and cylinders for paper-making machinery. Suited to surfacing of iron and copper-base materials.

TYPICAL ALL-WELD METAL ANALYSIS

Al	Fe	Mn	Ni	Cu
12.00	3.50	0.50	0.40	Base

WELD DEPOSIT MECHANICAL PROPERTIES

Hardness 3 layers as welded: 320 HB

SHIELDING GAS

ISO 14175: I1 (pure argon)

I3 (Ar + 30% He)

OPERATING CONDITIONS

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. Use of preheat and working temperatures up to 300°C will help forestall cracking.

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