

AUTOCRAFT SILICON BRONZE

PRODUCT DATA SHEET



GMAW OF COPPER SILICON ALLOYS



GAS METAL ARC WELDING (MIG) WIRES

AUTOCRAFT SILICON BRONZE

- For the GMAW Welding of Copper-Silicon Alloys including Cusilman and Everdur.
- Extensively used in Marine and Hot Water System Applications.
- Used for the Lower Strength Welding of Steels.

CLASSIFICATIONS:

AWS/ASME-SFA A5.7:

ERCuSi-A

TYPICAL ALL WELD METAL MECHANICAL PROPERTIES:

WELDING GRADE ARGON:

0.2% Proof Stress	170 MPa
Tensile Strength	380 MPa
Elongation (in 2 inches)	50%

TYPICAL WELD DEPOSIT HARDNESS WITH:

Argon + 16% CO ₂ + 2.75% O ₂ :	HR _B
Three Layers on Mild Steel	48

DESCRIPTION AND APPLICATIONS:

Autocraft Silicon Bronze is a Copper based wire recommended for the Gas Metal Arc Welding (GMAW) of Copper-Silicon alloys used extensively in hot water systems, heat exchangers, calorifiers and marine components for their corrosion resistance. Autocraft Silicon Bronze is highly recommended for the fillet welding of galvanised steels and irons and for the lower strength 'brazing' of light gauge steel sections as used in the automotive industry. It is also suitable for the MIG welding of Copper-Zinc alloys to themselves and to steels.

TYPICAL WIRE ANALYSIS:

Fe:	0.25%
Mn:	1.0%
Si:	3.40%
Sn:	1.0%
Zn:	0.90%
Cu:	Balance

COMPARABLE CIGWELD PRODUCTS:

Comweld Silicon Bronze rod
AWS A5.7: ERCuSi-A

PACKAGING & OPERATING DATA:

These machine settings are a guide only. Actual voltage and welding current used will depend on machine characteristics, plate thickness, run size, shielding gas and operator technique etc.

WIRE DIAMETER (MM)	VOLTAGE RANGE (VOLTS)	WIRE FEED SPEED (METERS/MIN)	CURRENT RANGE (AMPS)	PACK TYPE*	PACK WEIGHT	PART NO.
0.8	15-20	4.5-10.5	65-100	Handi Spool	5kg	720159
0.9	21-26	7.5-14.5	100-250	Spool	13kg	720015
1.2	22-28	5.5-11.5	160-380	Spool	13kg	720255

* Spool (ø300mm).

RECOMMENDED* SHIELDING GAS:

AS 4882:	SG-A SG-AC-8, or SG-AC-18 SG-A0-2 SG-HeA-25
ISO 14175 / AWS A5.32:	IT*- CERT SUPPLIED M20, M21 M13 I3
Welding grade Ar or Ar+CO ₂ (8-25%) or AR+O ₂ (1-3%) or He+Ar (25%)	

WELDING POSITIONS:

All positional welding applications.

