

AUTOCRAFT AL5356



- ▲ For GMAW Welding of Wrought and Cast Aluminium Alloys containing Magnesium.
- ▲ Patented Lubrication Process for Superior Wire Feedability.
- ▲ Superior Surface Cleanliness for Improved Resistance to Porosity.
- ▲ Tight Wire Diameter Control for Smooth, Consistent Arc Performance.
- ▲ DNV Shipping Society Approval.
- ▲ Standard 7.0 kg Spools for Fewer Spool Change-overs.

Classifications:

AS 2717.2:	E5356.
AWS/ASME-SFA A5.10:	ER5356.

Description and Applications:

Autocraft AL5356 is a premium quality, Aluminium - nominal 5% Magnesium alloy suitable for the Gas Metal Arc Welding (GMAW) of a wide range of cast and wrought Aluminium alloys. Autocraft AL5356 is the most popular Aluminium alloy in the CIGWELD range. It produces intermediate deposit strength and good ductility and corrosion resistance for the GMA welding of a wide range of 3XXX, 5XXX, 6XXX and 5XX Aluminium alloys.

See CIGWELD Aluminium Alloy Selection Chart for detailed welding consumable selection criteria for a wide range of Aluminium alloy parent metals.

Storage and Handling Recommendations:

- ◆ Store in a heated room with uniform temperature control and, if possible, with humidity control as well.
- ◆ Store unpackaged Autocraft AL series wires for long periods in a heated cabinet at 10-15°C above ambient temperature.
- ◆ Hold Autocraft AL series welding wires in the welding area for 24 hours before unpacking to allow its temperature to equalise with that of the surrounding area.
- ◆ Use dust covers on open wire feed units to protect wire during welding.

APPROVALS:

Det Norske Veritas (DNV).
Lloyds Register (LRS).
* with welding grade Argon

WIRE ANALYSIS LIMITS:

Single values are maximum allowable, unless otherwise stated.

Si: 0.25%	Fe: 0.40%	Cu: 0.10%
Mn: 0.05-0.2%	Mg: 4.5-5.5%	Cr: 0.05-0.20%
Zn: 0.10%	Ti: 0.06-0.20%	
Total others: 0.15%	Al: Balance	

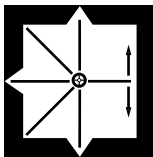
TYPICAL ALL WELD METAL MECHANICAL PROPERTIES:

Single-vee butt weld with 5086 Aluminium (reduced section tensile specimen):

	Welding grade Argon:
0.2% Proof Stress	130 MPa
Tensile Strength	269 MPa
Elongation (in 2 inches)	17%

RECOMMENDED SHIELDING GAS:

- Welding Grade Argon ISO14175:1
- Ar + 25% He or equivalent gases ISO14175:13
- He + 25% Ar or equivalent gases ISO14175:13



All positional welding applications

AUTOCRAFT AL5183



- ▲ For GMAW welding of wrought and cast aluminium alloys containing magnesium.
- ▲ Superior surface cleanliness for improved resistance to porosity.

Classifications:

AS 2717.2: E5183.
AWS/ASME-SFA A5.10: ER5183.

Description and Applications:

Autocraft AL5183 is a premium quality Aluminium welding wire that is typically used in the marine and structured industries, where higher strength and good fracture toughness is required. Autocraft AL5183 is ideally suited to the welding of Alloy 5083. Autocraft AL5183 is not suitable for heat treatment.

TYPICAL ALL WELD METAL MECHANICAL PROPERTIES:

Single-vee butt weld with 5083 Aluminium (reduced section tensile specimen)

Welding grade Argon:

0.2% Proof Stress 152 MPa

Tensile Strength 297 MPa

Elongation (in 2 inches) 16%

WIRE ANALYSIS LIMITS:

Single values are maximum allowable, unless otherwise stated.

Si: 0.40% Fe: 0.40% Cu: 0.10%

Mn: 0.5-1.0% Mg: 4.3-5.2% Cr: 0.05-0.25%

Zn: 0.25% Ti: 0.15%

Total others: 0.15% Al: Balance

RECOMMENDED SHIELDING GAS:

- Welding Grade Argon ISO14175: I
- Ar + 25% He or equivalent gases ISO14175: I3
- He + 25% Ar or equivalent gases ISO14175: I3

APPROVALS:

Det Norske Veritas (DNV)
Lloyds register of Shipping
American Bureau of Shipping

Packaging and 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. For 5XXX type welding wires use welding current settings on the higher side of the range specified below and arc voltages on the lower side of the range. For 1XXX, 2XXX and 4XXX type welding wires use welding current settings on the lower side of the specified range and arc voltages on the higher side.

Wire Dia mm	Voltage Range (volts)	Wire Feed Speed (metres/min)	Current Range (amps)	Pack Type*	Pack Weight	Part No
1.0	17-23	6.0-16.5	110-220	Spool	7kg	722239
1.2	20-25	5.5-12.0	150-250	Spool	7kg	722240

* Spool (ø300mm).