



2319 ALUMINUM Welding wire

U.S. ALLOY CO.
dba Washington Alloy
7010-G Reames Rd.
Charlotte, NC 28216
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Quality Management System
in accordance with
ISO 9001
Cert # 05-R0925



ALLOY DESCRIPTION AND APPLICATION;

2319 is an aluminum welding wire with an elevated copper content and a controlled manganese level that provides tough resistance to stress corrosion cracking and provides good service at high elevated temperatures. Developed to be used on 2219 in applications such as aircraft where high structural strengths proving better ductility compared to the 4000 series of filler when welding the 2000 series base metals. 2319 is heat treatable and can be used on 319.0, 333.0, 354.0 355.0, 380.0 and casting alloys such as C355.0

TYPICAL GMAW WELDING PROCEDURES; DCEP

Wire Diameter	Amps	Volts	Travel speed (ipm)	Argon (cfh)
0.030	60-175	15-24	25-45	25-30
0.035	70-185	15-27	25-40	30-35
3/64	125-260	20-29	24-35	35-45
1/16	170-300	24-30	28-38	45-55
3/32	275-400	26-31	14-20	60-75

TYPICAL GTAW WELDING PROCEDURES; ACHF with Pure or Ziconiated Hemisphere shape tungsten tip

Filler Wire Size	Tungsten	Amps	Volts	Gas Cup Size	Argon (cfh)	Base thickness
1/16"	1/16"	60-80	15	3/8"	20	1/16"
3/32"	3/32"	125-160	15	3/8"	20	1/8"
1/8"	1/8"	190-220	15	7/16"	20	3/16"
5/32"	5/32"	200-300	15	1/2"	25	1/4"
3/16"	3/16"	330-380	15-20	5/8"	25	3/8"
1/4"	1/4"	400-450	25	5/8"	25	1/2"

Procedures are base on flat position and may vary with change in position, base metals, filler metals, equipment and other changes.

TYPICAL CHEMISTRY AND PROPERTIES;

Magnesium	Titanium	Manganese	Zirconium	Copper	Silicon	Vanadium	Zinc	Iron	Beryllium
0.02	0.10-0.20	0.20-0.40	0.10-0.25	5.80-6.80	0.20	0.05-0.15	0.10	0.30	0.0003

Aluminum Remainder and others each 0.05 & total 0.15

All values are maximum percentage unless noted

Solidus:1010°F Liquidus:1190°F Density: 0.101 lbs./cu. In. Anodize color: golden

Average Tensile Strength All weld metal (as welded) 37,500 psi (259 mpa)

AVAILABLE SIZES: TA 2319 = Spools of 3/64, 1/16

TB 2319 = Cut lengths of 3/64, 1/16, 3/32, 1/8

Other sizes available – please inquire

SPECIFICATIONS; ANSI/AWS A5.10 ER/ R 2319

ASME SFA5.10 ER/ R 2319

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