



WELDCOTE

4047 (718) Aluminum (Welding & Brazing)



Description: Weldcote Metals 4047(718) was originally developed as a brazing alloy (BAISi-4 or 718) to take advantage of its low melting point and narrow freezing range. In addition, it has a higher silicon content than AL4043, which provides for increased fluidity and reduced shrinkage. Weldcote 4047 alloy produces bright and almost smut free welds. Hot cracking is significantly reduced when AL4047 is used as a filler alloy. AL4047 may be used in applications of sustained elevated temperatures. A4047 is non-heat treatable and the principle alloying element is Silicon. AL4047 (718) is a 12% silicon aluminum filler recommended for welding of: 1060, 1350, 3003, 5005, 5050, 6053, 6951, 7005, and cast alloys such as 710.0 and 711.0

Specifications: ANSI/AWS A5.10 (ER & R 4047)
AMS 4185 / ISO Designation: AlSi2

Typical GMAW Welding Procedures: DCEP

Wire Diameter	Amps	Volts	Travel Speed (ipm)	Argon (cfh)
0.030	60-170	13-24	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 Zirconiated 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

Procedures are based on flat position and may vary with change in position, base metals, filler metals, equipment and other changes. All parameters are suggested as basic guidelines and will vary.

Chemical Composition:

Silicon	11.0-13.0
Iron	0.80
Copper	0.30
Beryllium	0.0008
Manganese	0.15
Magnesium	0.10
Zinc	0.20
Others	0.15
Aluminum	Balance

Physical Properties:

Solidus	1065°F(574°C)
Liquidus	1170°F(632°C)
Density lbs./cu in	.097
Post Anodize Color	Gray

Available Sizes:

GMAW: Spools of .030, .035, 3/64
GTAW: Cut Lengths of 1/16, 3/32, 1/8

All values are maximum percentage unless noted

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