



Unibraze 4047

Specification: AWS A5.10 ER4047 / ASME SFA 5.10 ER4047 UNS A94047

Description: Unibraze 4047 is a 12% silicon all position aluminum welding wire used to weld heat treatable alloys like 1060, 1350, 5005, 6061, 6063, and 7005 and cast alloys. It is found common applications including trucks, trailers, bicycles, automotive parts and equipment. The addition on silicon improves wetting action yielding a more crack resistant, bright weld bead.

Typical Chemical Analysis %

	Al	Fe	Cu	Mn	Zn	Si	Mg	Others	Total others	Be*
AWS/ ASME	Bal.	.80 max	.30 max	.105m ax	.20 max	11.0 – 13.0	.10 max	.05 max	.15 max	.0008 max

*included in others

Typical Properties

Melt Point	1065-1075°F
Density	.097 lbs/cu in. Other
Post Anodize Color	Gray

Typical Mechanical Properties **

Tensile Strength	21,000 – 33,000 psi
Yield Strength	10,000 – 27,000 psi
Elongation	5% - 10%

**dependent on base alloy welded

GMAW Recommended parameters (DCEP)

Diameter	WFS ipm	Amps	Volts	LBS per 100'	Argon (cfh)
.030"	480-625	60-175	15-24	.65 – 1.25	25-30
.035"	450-750	70-185	15-27	1.0 – 4.25	30-35
3/64"	330-500	125-260	20-29	1.0-4.25	35-45
1/16"	250-450	170-300	24-30	38-66	45-75
3/32"	160-200	275-400	26-31	35-66	60-85

GTAW Recommended parameters (ACHF – with Pure or Ziconiated Hemisphere shape tungsten tip)

Base Thickness	Filler Wire Size	Tungsten	Amps	LBS per 100'	Gas Cup Size	Argon (cfh)
1/16"	1/16"	1/16"	60-80	.75	3/8"	20
3/32"	3/32"	3/32"	85-120	1.0	3/8"	20
1/8"	3/32"	3/32"	125-160	1.5	3/8"	20
3/16"	1/8"	1/8"	190-220	4.5-6.0	7/16"	25
¼"	5/32"	5/32"	200-300	8-10	½"	30
3/8"	3/16"	3/16"	330-380	15-20	5/8"	35
½"	¼"	¼"	400-500	25-40	5/8"	40