



Smootharc 4043

AWS ER4043

Replaces 100326

131-A, INDEX: 100913

DESCRIPTION:

ER4043 is a widely used aluminum alloy for many general purpose applications. It is less sensitive to weld cracking than other aluminum alloys, and the higher silicon content is to reduce the melting point and increase the fluidity.

TYPICAL WIRE ANALYSIS, %*:

Weld Chemistry	AWS*A5.10
Silicon (Si)	4.5- 6.0
Iron (Fe)	0.8
Copper (Cu)	0.30
Manganese (Mn)	0.05
Magnesium (Mg)	0.05
Zinc (Zn)	0.10
Titanium (Ti)	0.20
Beryllium (Be)	<0.0008
Aluminum (Al)	Remainder

*unless noted—values listed are maximums

TYPICAL PROPERTIES:

Melting Range	1065 - 1170°F	Corrosion Resistance	A (Gen) C (SCC)
Density	0.097 lbs/cu in	Anodized Color	Gray
Conductivity	42% IACS (-0)		

AVAILABLE DIAMETERS AND PACKAGING:

Diameter	1-lb. Spool	12-lb. Reel	16-lb. Reel	300-lb. Drum	36-In Cut Lengths
.030	S381806-Z18	S381806-Z24			
.035	S381808-Z18		S381808-Z25	S381808-Z73	
3/64	S381813-Z18		S381813-Z25	S381813-Z73	
1/16			S381818-Z25	S381818-Z73	S381818-Z12
3/32					S381837-Z12
1/8					S381846-Z12

CONFORMANCES AND APPROVALS:

- AWS A5.10
- CWB
- AMS 4190 (Chemistry Limits Only)

*The information contained or otherwise referenced herein is presented only as "typical" without guarantee or warranty, and McKay expressly disclaims any liability incurred from any reliance thereon. Typical data are obtained when welded and tested in accordance with AWS A5.10 specification. Other tests and procedures may produce different results. No data is to be construed as a recommendation for any welding condition or technique not controlled by McKay.

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WELDING DATA: The information listed below was determined by GMAW welding performed with DCEP welding current with 100% argon shielding gas.

Wire Dia Inches	DC (EP) ³ Range		Base ¹ Thickness Inches	DC (EP) ³ Suggested		Wire Feed IPM	Argon Gas Flow CFH	Approximate Consumption ² Lbs/100 Ft.
	Amps	Volts		Amps	Volts			
.030	100-130	18-22	.094	100	22	500	30	0.75
	125-150	20-24	.125	120	22	600	30	1
.035	85-120	20-23	.094	110	22	480	30	0.75
	125-150	20-24	.125	130	22	566	30	1
	170-190	21-26	.250	170	22	740	30	4
.047	125-150	20-24	.125	150	23	360	30	1
	180-210	22-26	.187	180	23	410	30	2.3
	170-240	24-28	.250	190	24	470	40	4
.062	190-260	21-26	.250	200	23	265	50	4
	240-300	22-27	.375	230	24	300	50	9
	260-310	22-27	.500	260	26	240	60	16
	280-320	24-28	.750	280	27	385	65	36
	290-340	26-30	1.000	300	28	420	70	64

1. Metal thickness of 3/4" or greater for fillet welds sometimes employs a double vee bevel of 50 deg or greater included vee with 3/32 to 1/8 inch land thickness on the abutting member.
2. Number of weld passes and electrode consumption given for weld on one side only.
3. For 5XXX series electrodes use a welding current in the high side of the range given and an arc voltage in the lower portion of the range. 1XXX, 2XXX and 4XXX series electrodes would use the lower currents and higher arc voltage.

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Because McKay is constantly improving products, McKay reserves the right to change design and/or specifications without notice.