



Pinnacle Alloys are products of SOWESCO

ER1100 DATA SHEET

Pinnacle Alloys ER1100

AWS CLASS ER1100, R1100

CODE AND SPECIFICATION DATA:

AWS A5.10 ASME SFA 5.10

DESCRIPTION:

Pinnacle Alloys ER1100 is 99% aluminum filler, typically used on similar base metal such as 1060, 1070, 1080, 1100, 1350, and 3003.

DIAMETERS: .030", .035", 3/64", 1/16", 3/32", 1/8", 5/32"

TYPICAL CHEMICAL COMPOSITION (Wt %):

Aluminum (Al)	99.0 min
Beryllium (Be)	0.0008 max
Copper (Cu)	0.05-0.20
Manganese (Mn)	0.50 max
Zinc (Zn)	0.10 max
Iron (Fe) + Silicon (Si)	0.95 max
Other elements	0.05 max each & 0.15 max total

TYPICAL MECHANICAL PROPERTIES:

Melting Range	1090°F-1215°F (643°C-657°C)
Ultimate Tensile Strength (psi)	14,000-23,000 psi
Yield Strength (psi)	8,000-22,500 psi
Percent Elongation in 2"	5-32%
Density	0.098 lbs/in ³
Post Anodize Color	White-gold

TYPICAL MIG WELDING PARAMETERS (DCEP):

Diameter	WFS (ipm)	Amperage	Volts	Consumption (lb/100 ft)	Argon (cfh)
.030"	480-625	60-175	15-24	0.65-1.25	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	3.8-6.6	45-75



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TYPICAL TIG WELDING PARAMETERS:

Base Thickness	Filler Wire Size	Tungsten	Amperage	Consumption (lb/100 ft)	Argon (cfh)	Gas Cup Size
1/16"	1/16"	1/16"	60-80	0.75	20	3/8"
3/32"	3/32"	3/32"	85-120	1.0	20	3/8"
1/8"	3/32"	3/32"	125-160	1.5	20	3/8"
3/16"	1/8"	1/8"	190-220	4.5-6	25	7/16"
1/4"	5/32"	5/32"	200-300	8-10	30	1/2"

NOTICE: The results reported are based upon testing of the product under controlled laboratory conditions in accordance with American Welding Society Standards. Actual use of the product may produce different results due to varying conditions. An example of such conditions would be electrode size, plate chemistry, environment, weldment design, fabrication methods, welding procedure and service requirements. Thus the results are not guarantees for the use in the field. The manufacturer disclaims any warranty of merchantability of fitness for any particular purpose with respect to its products.

CAUTION: Consumers should be thoroughly familiar with the safety precautions on the warning label posted in each shipment and in the American National Standards A49.1, "Safety in Welding and Cutting," published by the American Welding Society, 550 NW LeJune Road, Miami, FL 33126: OSHA Safety and Health Standards 29 CFR 1910 is available from the U.S. Department of Labor, Washington, D.C. 20210.

Pinnacle Alloys MSDS sheet may be obtained at www.pinnaclealloys.com.