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PREMIER 317LT-AP DATA SHEET

PREMIER 317LT-AP

AWS CLASS E317LT1-1, E317LT1-4, E317T1-1, E317T1-4

CODE AND SPECIFICATION DATA:

AWS A5.22 ASME SFA 5.22

DESCRIPTION:

PREMIER 317LT-AP is an all position stainless steel electrode with a nominal weld metal composition of 19.5% chromium, 13% nickel, 3.5% molybdenum, and a maximum carbon content of 0.04%. PREMIER 317LT-AP's higher level of molybdenum improves resistance to pitting and provides increased creep resistance. PREMIER 317LT-AP contains a higher molybdenum content than 316LT-AP, giving it better resistance to pitting corrosion. This electrode offers excellent resistance to solutions of sulfuric acid and sulfur bearing gases. It is used to weld Types 316 and 317 stainless. PREMIER 317LT-AP is ideal for applications in the pulp and paper industry and for welding food and pharmaceutical equipment.

CHARACTERISTICS:

- Low carbon content minimizes carbide precipitation, maximizes resistance to intergranular corrosion.
- Resists pitting corrosion
- Achieves flat, well-washed beads with minimal weaving.
- Produces very low spatter.
- Reduces cleanup due to exceptional slag peeling.

SHIELDING GAS: 100% CO₂, 75-80% Ar/ balance CO₂, 40-50 cfh

DIAMETERS: .035", .045", 1/16"

WELDING POSITIONS: All positions

TYPICAL DEPOSIT COMPOSITION (Wt% CO₂):

Carbon (C)	0.03
Chromium (Cr)	19.20
Manganese (Mn)	1.00
Molybdenum (Mo)	3.30
Nickel (Ni)	12.80
Nitrogen (N)	0.05
Silicon (Si)	0.70

Ferrite Number (WRC, 1992) - 8

TYPICAL MECHANICAL PROPERTIES (CO₂)*:

Ultimate Tensile Strength (psi)	90,000 psi
Yield Strength (psi)	69,000 psi
Percent Elongation	34%

*Strength levels will be slightly higher with 75-80% Ar/ balance CO₂



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TYPICAL WELDING PARAMETERS (CO₂):

Diameter	WFS (ipm)	Amperage	Volts	ESO (in.)	Deposition Rate (lbs/hr)
.035"	300	110	25	5/8-3/4"	3.3
	500	150	26	5/8-3/4"	5.4
	600	165	27	5/8-3/4"	6.3
	700	175	28	5/8-3/4"	7.7
.045"	250	130	24	5/8-3/4"	5.4
	300	160	26	5/8-3/4"	6.3
	425	200	28	5/8-3/4"	9.2
	780	270	34	5/8-3/4"	16.2
1/16"	150	170	25	3/4-1"	5.4
	195	215	27	3/4-1"	7.0
	240	250	28	3/4-1"	8.6
	320	305	29	3/4-1"	11.5

Note: Optimum conditions are in boldface type. Reduce by 2 volts when using 75-80% Ar/ balance CO₂.

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.