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## E320/320LR-16 DATA SHEET

### Pinnacle Alloys E320/320LR-16

AWS CLASS E320-16, E320LR-16

#### CODE AND SPECIFICATION DATA:

AWS A5.4 ASME SFA 5.4; UNS W88021 (320) & UNS W88022 (320LR)

#### DESCRIPTION:

Pinnacle Alloys E320/320LR-16 produces a high purity weld deposit which reduces weld metal fissuring (while maintaining the corrosion resistance) frequently encountered in fully austenitic stainless steel weld metals. Pinnacle Alloys E320/320LR-16 is primarily used to weld Carpenter 20Cb-3 and is especially suited to pipe welding.

**DIAMETERS:** 3/32", 1/8", 5/32", 3/16"

#### TYPICAL CHEMICAL COMPOSITION (Wt %):

Carbon (C)	0.02
Chromium (Cr)	19.5
Copper (Cu)	3.50
Manganese (Mn)	1.90
Molybdenum (Mo)	2.20
Nickel (Ni)	33.1
Phosphorous (P)	0.02 max
Silicon (Si)	1.00 max
Sulfur (S)	0.015 max
Niobium (Nb) + Tantalum (Ta)	0.30

#### TYPICAL MECHANICAL PROPERTIES:

Ultimate Tensile Strength (psi) 81,000 psi  
Percent Elongation 38%

#### TYPICAL WELDING PARAMETERS:

Diameter	Length	Amperage	
		Flat	Vertical & Overhead
3/32"	12"	70-85	65-75
1/8"	14"	85-110	80-90
5/32"	14"	110-140	100-120
3/16"	14"	120-160	110-130

**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](http://www.pinnaclealloys.com).