

## Pinnacle Alloys are products of SOWESCO

ISO 9001:2008 REGISTERED Certificate No.: 50040 & 50415

# **ERNI-CI DATA SHEET**

Pinnacle Alloys ERNi-CI (99)
AWS CLASS ERNi-CI
CODE AND SPECIFICATION DATA:
AWS A5.15 ASME SFA 5.15; UNS N02215

#### **DESCRIPTION:**

Pinnacle Alloys ERNi-CI is a solid continuous bare electrode and is composed of essentially pure nickel (99%) with no deoxidizers. This electrode is used to weld cast irons when weld metal with highly diluted filler metal is to be machined. In addition, it can be used to weld cast irons to mild steels and stainless steels. A preheat and interpass temperature of not less than 350°F is typically used during welding to prevent cracking.

**DIAMETERS:** .035", .045", 1/16", 3/32", 1/8", 5/32"

WELDING POSITIONS: All positions











#### TYPICAL DEPOSIT COMPOSITION:

	AWS Spec	Weld Metal Analysis (%)
Carbon (C)	1.00	0.005
Copper (Cu) <sup>a</sup>	4.00	0.03
Iron (Fe)	4.00	0.15
Manganese (Mn)	2.50	0.01
Nickel (Ni) <sup>b</sup>	90.0 min	99.7
Silicon (Si)	0.75	0.10
Sulfur (S)	0.03	0.001

NOTE: Single values are maximums.

<sup>&</sup>lt;sup>a</sup> Copper plus incidental Silver

<sup>&</sup>lt;sup>b</sup> Nickel plus incidental Cobalt



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#### **TYPICAL MECHANICAL PROPERTIES:**

	AWS Spec (min)	As Welded
Ultimate Tensile Strength	Not required	69,600 psi (480 MPa)
Yield Strength	Not required	36,300 psi (250 MPa)
Percent Elongation in 2"	Not required	39%

# **TYPICAL WELDING PARAMETERS:**

	Diameter	Amperage	Volts	Shielding Gas
GTAW	3/32"	85-170	9-15	100% Ar
	1/8"	100-200	9-15	
GMAW	.035"	150-190	24-27	75% Ar/ Balance He
	.045"	200-290	25-30	

NOTE: Maintaining a proper welding procedure, including pre-heat and interpass temperatures, may be critical depending on the type and thickness of material being welded.

**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, 8669 NW 36 Street, #130, Miami, FL 33126: OSHA Safety and Health Standards 29 CRF 1910 is available from the U.S. Department of Labor, Washington, D.C. 20210.

Pinnacle Alloys SDS sheets may be obtained on the website below.