



Pinnacle Alloys are products of SOWESCO

ISO 9001:2015 REGISTERED
Certificate No.: 50040 & 50415

ERNiCu-7 DATA SHEET

Pinnacle Alloys ERNiCu-7 (60)

AWS CLASS ERNiCu-7

CODE AND SPECIFICATION DATA:

AWS A5.14 ASME SFA 5.14; UNS N04060

DESCRIPTION:

Pinnacle Alloys ERNiCu-7 has a nominal composition (wt.-%) of 65 Ni, 30 Cu, 3 Mn, and 2 Ti. Filler metal of this classification is used for welding nickel-copper alloy (ASTM B 127, B 163, B 164, and B 165 having UNS Number N04400) to itself using the GTAW, GMAW, SAW, and PAW processes. The filler metal contains sufficient titanium to control porosity with these welding processes. The wire's strength and corrosion-resistance makes Pinnacle Alloys ERNiCu-7 an excellent choice for welding in salt, seawater, and reducing acid environments.

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

WELDING POSITIONS: GTAW & GMAW: All positions



TYPICAL DEPOSIT COMPOSITION:

| | AWS Spec | Weld Metal Analysis (%) |
|----------------|-----------|-------------------------|
| Aluminum (Al) | 1.25 | 0.104 |
| Carbon (C) | 0.15 | 0.008 |
| Copper (Cu) | Balance | 30.07 |
| Iron (Fe) | 2.50 | 0.73 |
| Manganese (Mn) | 4.00 | 3.39 |
| Nickel (Ni) | 62.0-69.0 | 63.6 |
| Phosphorus (P) | 0.02 | 0.002 |
| Silicon (Si) | 1.25 | 0.052 |
| Sulfur (S) | 0.015 | 0.002 |
| Titanium (Ti) | 1.5-3.0 | 1.79 |

NOTE: Single values are maximums.



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TYPICAL MECHANICAL PROPERTIES:

| | AWS Spec (min) | As Welded |
|---------------------------|----------------|----------------------|
| Ultimate Tensile Strength | Not required | 78,000 psi (540 MPa) |
| Percent Elongation in 2" | Not required | 42% |

TYPICAL WELDING PARAMETERS:

| | Diameter | Amperage | Volts | Shielding Gas |
|------|----------|----------|-------|----------------|
| GTAW | 1/16" | 90-130 | | 100% Ar |
| | 3/32" | 120-175 | | |
| | 1/8" | 150-220 | | |
| GMAW | .035" | 150-190 | 26-29 | 75% Ar/ 25% He |
| | .045" | 180-220 | 28-32 | |
| | 1/16" | 200-250 | 29-33 | |
| SAW | 3/32" | 275-350 | 28-30 | Suitable Flux |
| | 1/8" | 350-450 | 29-32 | |
| | 5/32" | 400-550 | 30-33 | |

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.