AN ISO 9001:2015 COMPANY
CERTIFICATE NO.: C755336

ERNiFeCr-2 DATA SHEET

Pinnacle Alloys ERNiFeCr-2 (718)
AWS CLASS ERNiFeCr-2
CODE AND SPECIFICATION DATA:
AWS A5.14 ASME SFA 5.14

DESCRIPTION:
Pinnacle Alloys ERNiFeCr-2 is used for TIG welding alloys 718, 706, and X-750. It is mainly used for welding high strength aircraft components and liquid rocket components involving cryogenic temperatures. High heat input processes, such as MIG welding, often result in micro fissuring. This alloy can be age hardened to higher strengths.

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

TYPICAL DEPOSIT COMPOSITION (Wt %):

Aluminum (Al)	0.40
Carbon (C)	0.05
Chromium (Cr)	17.8
Copper (Cu)	0.002
Iron (Fe)	20.2
Manganese (Mn)	0.03
Molybdenum (Mo)	2.95
Nickel (Ni)	51.8
Phosphorous (P)	0.005
Silicon (Si)	0.12
Sulfur (S)	0.001
Titanium (Ti)	1.11
Niobium (Nb) + Tantalum (Ta)	5.33

TYPICAL MECHANICAL PROPERTIES:

Ultimate Tensile Strength (psi)	125,000 psi (860 MPa)
Yield Strength (psi)	91,000 psi (630 MPa)
Percent Elongation	27%

TYPICAL WELDING PARAMETERS:

	Diameter	Amperage	Volts	Shielding Gas
GTAW	1/16”	80-110		100% Ar
	3/32”	90-130		
	1/8”	120-175		
	5/32”	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	

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 CRF 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.