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ERNiCrMo-3

Shanti Metal Supply Corporation ERNiCrMo-3

AWS CLASS ERNiCrMo-3

CODE & SPECIFICATION DATA:

AWS A5.14 ASME SFA 5.14; UNS N06625

TYPICAL DEPOSIT COMPOSITION		
Element	AWS Spec (%)	Weld Metal Analysis (%)
Aluminum (Al)	0.4	0.104
Carbon (C)	0.1	0.011
Chromium (Cr)	20.0-23.0	22.26
Copper (Cu)	0.5	0.026
Iron (Fe)	5	0.264
Manganese (Mn)	0.5	0.041
Molybdenum (Mo)	8.0-10.0	9.08
Nickel (Ni)	58.0 min	64.13
Phosphorus (P)	0.02	0.003
Silicon (Si)	0.5	0.056
Sulfur (S)	0.015	0.001
Titanium (Ti)	0.4	0.209
Niobium (Nb) + Tantalum (Ta)	3.15-4.15	3.63

TYPICAL MECHANICAL PROPERTIES:		
Property	AWS Spec (min)	As Welded
Ultimate Tensile Strength	Not required	115,000 psi (790 MPa)
Percent Elongation in 2"	Not required	45%

DESCRIPTION

Shanti Metal Supply Corporation ERNiCrMo-3 has a nominal composition of 61% Ni, 22% Cr, 9% Mo, and 3.5% Nb + Ta. This filler metal is used for welding nickel-chromium-molybdenum alloys to steel and other nickel-based alloys, offering excellent corrosion and oxidation resistance. It is ideal for high-temperature applications in power generation, petrochemical, marine, and offshore industries.



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

NOTICE

The results reported are based on testing under controlled laboratory conditions per American Welding Society standards. Actual performance may vary due to factors such as electrode size, plate chemistry, environment, weldment design, fabrication methods, welding procedures, and service requirements. Shanti Metal Supply Corporation does not guarantee specific field results and disclaims any warranty of merchantability or fitness for a particular purpose regarding its products.



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