



GB/T 13814 —

AWS A5.14 ERNiCrWMo-1

EN ISO 14172 —

AK ERNiCrWMo-1

Description: ERNiCrWMo-1 is a nickel-chromium-tungsten-molybdenum filler metal classified in AWS A5.14. It is intended for GTAW and GMAW welding of HAYNES 230-W alloy and can also be used for UNS N06617. The deposited weld metal offers excellent high-temperature strength, oxidation resistance, long-term stability, and good fabricability.

Application: ERNiCrWMo-1 is suitable for welding high-temperature nickel alloys used in aerospace and power equipment. Typical applications include gas turbine hot-section parts such as combustion cans, transition ducts, flame holders, and thermocouple sheaths, where oxidation resistance, thermal stability, and elevated-temperature strength are required.

Typical Chemical Composition(%):

	C	Mn	Fe	P	S	Si	Cu	Ni	Co
Requirement	0.05-0.15	0.30-1.0	3.0	0.030	0.015	0.25-0.75	0.50	Rem.	5.0
Actual Result	0.08	0.50	1.98	0.010	0.001	0.39	0.20	Rem.	4.15
	Al	Ti	Cr	Nb+Ta	Mo	V	W	La	B
Requirement	0.20-0.5	—	20.0-24.0	—	1.0-3.0	—	13.0-15.0	0.050	0.003
Actual Result	0.30	—	21.37	—	2.26	—	14.25	0.010	0.001

Typical Mechanical Properties:

	Tensile Strength (MPa)	Yield Stress (MPa)	Elongation (%)	Impact Values (J)
Requirement	≥760			
Actual Result	824			