



GB/T 13814 —

AWS A5.11 ENiCrWMo-1

EN ISO 14172 —

AK ENiCrWMo-1

Description: ENiCrWMo-1 is a nickel-chromium-tungsten-molybdenum covered electrode developed for shielded metal arc welding of HAYNES 230 and similar high-temperature nickel alloys. It delivers excellent high-temperature strength, long-term thermal stability, and outstanding resistance to oxidation in prolonged service up to 2100°F.

Application: ENiCrWMo-1 is commonly used for welding furnace parts, gas turbine components, combustion hardware, heat-treatment equipment, and petrochemical processing systems. It is well suited for fabrications exposed to severe heat, thermal cycling, and oxidizing atmospheres where stable weld performance is critical.

Typical Chemical Composition(%):

	C	Mn	Fe	P	S	Si	Cu	Ni	Co
Requirement	0.05-0.10	0.30-1.0	3.0	0.020	0.015	0.25-0.75	0.50	Rem.	5.0
Actual Result	0.09	0.75	1.50	0.010	0.005	0.60	0.20	Rem.	2.37
	Al	Ti	Cr	Nb+Ta	Mo	V	W	La	B
Requirement	0.50	0.10	20.0-24.0	—	1.0-3.0	—	13.0-15.0	—	—
Actual Result	0.10	0.02	22.84	—	2.25	—	13.65	—	—

Typical Mechanical Properties:

	Tensile Strength (MPa)	Yield Stress (MPa)	Elongation (%)	Impact Values (J)
Requirement	≥620		20	
Actual Result	675		24	