



GB/T 13814 ——

AWS A5.14 ERNiCrFe-13

EN ISO 14172 ——

AK ERNiCrFe-13

Description: ERNiCrFe-13 is a nickel-chromium-iron welding alloy, commonly associated with 52MSS-type filler metal. It is developed for welding Alloy 690 and similar nickel-based alloys, offering excellent resistance to stress corrosion cracking, improved ductility-dip cracking resistance, and reliable high-temperature performance.

Application: ERNiCrFe-13 is mainly used in nuclear, power generation, and process industries for welding Alloy 690 and other high-chromium nickel alloys. It is also suitable for dissimilar joints and corrosion-resistant overlay welding where crack resistance, durability, and long-term service stability are required.

Typical Chemical Composition(%):

	C	Si	Mn	S	P	Cr	Ni	Cu	Ti
Requirement	0.03	0.50	1.0	0.015	0.020	28.5-31.0	52.0-62.0	0.30	0.50
Actual Result	0.01	0.30	0.30	0.005	0.001	29.0	55.60	0.05	0.10
	N	Fe	Al	Nb+Ta	Mo	B	Zr	Co	W
Requirement	——	Rem.	0.50	2.10-4.0	3.0-5.0	0.003	0.02	0.10	——
Actual Result	——	Rem.	0.20	3.20	3.50	0.001	0.01	0.02	——

Typical Mechanical Properties:

	Tensile Strength (MPa)	Yield Stress (MPa)	Elongation (%)	Impact Values (J)
Requirement	≥590			
Actual Result	630			