



GB/T 13814 —

AWS A5.14 ERNiFeCr-3

EN ISO 14172 —

# AK ERNiFeCr-3

**Description:** ERNiFeCr-3 is a nickel-iron-chromium welding alloy developed for welding alloy 945X type materials. It offers excellent weldability, stable deposited metal properties, and good resistance in demanding environments involving high pressure, elevated temperature, and corrosive media.

**Application:** ERNiFeCr-3 is mainly used in oil and gas applications for welding 945X alloys to themselves, to steels, and for weld overlay on steel components. It is suitable for pipes, tubes, manifolds, wellheads, valve bodies, and other equipment exposed to sour or corrosive service conditions.

## Typical Chemical Composition(%):

	C	Si	Mn	S	P	Cr	Ni	Cu	Ti
<b>Requirement</b>	0.005-0.040	0.50	1.0	0.015	0.030	19.5-23.0	45.0-55.0	1.50-3.0	0.50-2.50
<b>Actual Result</b>	0.01	0.20	0.63	0.005	0.002	20.20	53.15	1.69	1.24
	N	Fe	Al	Nb+Ta	Mo	B	Zr	Co	W
<b>Requirement</b>	---	Rem.	0.01-0.70	2.50-4.50	3.0-4.0	---	---	---	---
<b>Actual Result</b>	---	Rem.	0.25	4.26	3.66	---	---	---	---

## Typical Mechanical Properties:

	Tensile Strength (MPa)	Yield Stress (MPa)	Elongation (%)	Impact Values ( J)
<b>Requirement</b>	≥1170			
<b>Actual Result</b>	1205			