



GB/T 13814 ——

AWS A5.11 ENiCrFe-9

EN ISO 14172 ——

# AK ENiCrFe-9

**Description:** ENiCrFe-9 is a low-hydrogen nickel-chromium-iron electrode designed for cryogenic-duty welding. It delivers stable mechanical properties, strong weld integrity, good resistance to hot cracking, and excellent low-temperature toughness, making it especially suitable for highly demanding low-temperature fabrication.

**Application:** It is primarily used for welding 9% nickel steel in LNG storage tanks, cryogenic vessels, and related low-temperature structures. It can also be used for nickel-chromium-iron alloy joints, clad-side welding, and selected dissimilar metal connections where strength and cryogenic toughness are both required.

## Typical Chemical Composition(%):

	C	Mn	Fe	P	S	Si	Cu	Ni	Co
Requirement	0.15	1.0-4.5	12.0	0.020	0.015	0.75	0.50	≥55.0	---
Actual Result	0.10	3.10	9.25	0.015	0.010	0.50	0.10	62.50	---
	Al	Ti	Cr	Nb+Ta	Mo	V	W	La	B
Requirement	---	---	12.0-17.0	0.50-3.0	2.50-5.50	---	1.50	---	---
Actual Result	---	---	14.35	1.85	3.64	---	1.20	---	---

## Typical Mechanical Properties:

	Tensile Strength (MPa)	Yield Stress (MPa)	Elongation (%)	Impact Values (J)
Requirement	≥650		25	
Actual Result	695		29	