GB/T 13814 ——

AWS A5.11 ENiCrFe-10

EN ISO 14172——

AK ENiCrFe-10

Description: ENiCrFe-10 is a nickel-chromium-iron electrode with added molybdenum, tungsten, and Nb/Ta for demanding cryogenic service. Its composition is designed to provide a strong, reliable weld deposit with balanced strength, toughness, and resistance to cracking in critical low-temperature applications.

Application: It is mainly used for welding 9% nickel steel in LNG tanks, cryogenic piping, and ultra-low-temperature storage systems. It is especially suitable where welded joints must retain mechanical integrity at very low temperatures while supporting safe service in transport, storage, and energy infrastructure.

Typical Chemical Compostion(%):

	C	Mn	Fe	P	S	Si	Cu	Ni	Co
Requirement	0.20	1.0-3.5	12.0	0.020	0.015	0.75	0.50	⩾55.0	——
Actual Result	0.15	2.65	10.43	0.010	0.010	0.40	0.10	63.15	——
	Al	**Ti**	**Cr**	**Nb+Ta**	**Mo**	**V**	**W**	**La**	**B**
Requirement	——	——	13.0-17.0	1.0-3.5	1.0-3.5	——	1.50-3.50	——	——
Actual Result	——	——	14.62	2.20	1.94	——	2.50	——	——

Typical Mechanical Properties:

	Tensile Strength (MPa)	Yield Stress (MPa)	Elongation (%)	Impact Values (J)
Requirement	≥650		25	
Actual Result	690		28	