GB/T 13814 ——

AWS A5.11 ENiMo-3

EN ISO 14172——

AK ENiMo-3

Description: ENiMo-3 is a nickel-molybdenum welding electrode correlated with UNS W80004 / Hastelloy W-type chemistry. Its nominal weld metal is about 63Ni-25Mo-5.5Fe-4Cr, and it was developed for dissimilar alloy welding, offering strong compatibility across nickel-, cobalt-, and iron-base material combinations.

Application: This grade is ideal for dissimilar joints involving nickel-, cobalt-, and iron-base alloys where a stable transition weld is required. It is commonly selected for fabrication or repair of mixed-alloy assemblies, especially when flat-position welding is acceptable and metallurgical compatibility is critical.

Typical Chemical Compostion(%):

	C	Mn	Fe	P	S	Si	Cu	Ni	Co
Requirement	0.12	1.0	4.0-7.0	0.040	0.030	1.0	0.50	Rem.	2.50
Actual Result	0.04	0.80	5.50	0.015	0.010	0.50	0.10	Rem.	1.95
	Al	**Ti**	**Cr**	**Nb+Ta**	**Mo**	**V**	**W**	**La**	**B**
Requirement	——	——	2.50-5.50	——	23.0-27.0	0.60	1.0	——	——
Actual Result	——	——	3.86	——	25.16	0.10	0.20	——	——

Typical Mechanical Properties:

	Tensile Strength (MPa)	Yield Stress (MPa)	Elongation (%)	Impact Values (J)
Requirement	≥690		25	
Actual Result	735		28	