

AK ER409Nb

Description:

ER409Nb is a niobium-stabilized ferritic stainless steel welding wire developed to improve grain stability, heat resistance, and weld performance in 409-type stainless steels. It offers dependable oxidation resistance, good arc stability, and reliable weld quality for thin-gauge and exhaust-grade applications.

Application Scenario:

ER409Nb is commonly used for automotive exhaust manifolds, mufflers, tubing, and other ferritic stainless components exposed to cyclic heat. It is ideal for production welding where better thermal fatigue resistance, structural stability, and consistent weld performance are required.

Typical Chemical Composition(%):

	C	Cr	Ni	Mo	Mn	Si	P	S	Nb
Requirement	0.08	10.5-13.5	0.60	0.50	0.80	1.0	0.040	0.030	10*C-0.75
Actual Result	0.02	12.52	0.20	0.30	0.60	0.50	0.015	0.010	0.52

Typical Mechanical Properties:

	Tensile strength (MPa)	Yield Stress (MPa)	Elongation (%)	Impact Values (J)
Requirement	450		20	
Actual Result	560		27	