

AK ER80S-Ni1

Description: Gas-shielded welding wire for 550MPa low-temperature steel deposited metal has good mechanical properties, good low-temperature impact toughness at -45°C; stable arc, beautiful shape, good fluidity of molten iron, less spatter, and excellent welding process performance.

Application: It is suitable for industries such as low-temperature containers pipelines, machinery, and LPG storage tanks, and can meet the requirements of -45°C low-temperature environment.

Typical Chemical Composition(%):

	C	Si	Mn	S	P	Ni	Cr	Mo	V
Requirement	0.12	0.40-0.8	1.25	0.025	0.025	0.8-1.1	0.15	0.35	0.05
Actual Result	0.08	0.60	1.03	0.004	0.01	0.97	0.01	0.03	0.001

Typical Mechanical Properties:

	Tensile strength (MPa)	Yield Stress (MPa)	Elongation (%)	Impact Values (J)
Requirement	≥ 520	≥470	≥ 24	≥ 54(-45°C)
Actual Result	598	540	28	93

Recommended welding parameters:

Diameter/ mm		2.5	3.2	4.0
Welding current /A	F/H	50-120	80-350	170-550
	V/OH	50-120	80-150	