

AKR307L

Description: AKR307L is a kind of low carbon heat-resistant steel electrode with low-hydrogen sodium type coating. It has excellent technological performance, low spatter, good slag detachability, beautiful appearance of weld. DCRP (Direct Current Reversed Polarity). All-position welding. short-arc welding. The weldments should be given preheating to 160~220 °C before welding. The weldments should be given tempering at 680-720°C after welding.

Application: Used for welding Cr1.0%-Mo0.5% heat-resistant steel below 520°C, such as boiler pipes, high pressure vessels, equipment for petroleum refining, etc. Also used for welding 30CrMoSi cast steel.

Typical Chemical Composition(%):

	C	Mn	P	S	Si	Cr	Mo	—	—
Requirement	0.05	0.90	0.03	0.03	1.0	1.0-1.5	0.4-0.65	—	—
Actual Result	0.046	0.75	0.009	0.006	0.35	1.2	0.58	—	—

Typical Mechanical Properties : ①=normal temperature

	Tensile strength (MPa)	Yield Stress (MPa)	Elongation (%)	Impact Values (J)
Requirement	≥ 520	≥ 390	≥ 17	27J / ①
Actual Result	590	480	26	180J/①

Recommended welding parameters:

Diameter / mm	2.5	3.2	4.0	5.0
Electrode Length(mm)	300	350	400	400
Welding Current (A)	60-90	90-120	140-180	170-210

Notes on Usages:

1. The electrodes must be baked at 350~380°C for an hour before welding and used as soon as baking is completed.
2. The stains on the weldments, such as rust, oil stains, moisture, etc., must be cleared away before welding.