

Characteristics and Applications:

KF81-B2C is a rutile-based flux cored wire containing 1.25%Cr-0.5%Mo, designed for the welding of 590MPa creep-resistant steels. In the application of 1.25%Cr-0.5%Mo alloyed boiler, heat exchanger, pressure vessel and tube requiring high temperature services, such as A387 Gr. 11 plates and A335 P11 pipes, It can provide not only excellent crack resistance and high ductility, but also stable arc, less spatter and easy slag removal.

Welding Position:

Typical Chemical Composition of All-Weld Metal:

Alloy wt%	C	Mn	Si	Cr	Ni	Mo	P	S
AWS	0.05-0.12	1.25	0.80	1.00-1.50	--	0.40-0.65	0.03	0.03
Tested	0.055	1.01	0.37	1.19	--	0.57	0.012	0.009

Mechanical Properties of All-Weld Metal:

Mechanical properties	Yield Strength (Mpa)	Tensile Strength (Mpa)	Elongation (%)	PWHT °C/hr
AWS	470	550-690	19	690 ± 15*1
Tested	545	625	23	-

Notes on Usage:

1. Polarity : DC+.
2. Use over 99.8% purity of CO₂ as shielding gas. This product cannot use mixed gas, the flow is 20-25L/min.
3. Keeping the stickout is around 15-20mm.
4. Preheating and interpass temperature at 175±15°C before welding, keeping homologous interlayer-temperature, which is according to the specification requirement of welding electrodes.
5. Cooling slowly after welding or dehydrogenation treating, do post heat treating 690±15°C to cancel stress. which is according to the specification requirement of welding electrode.

Sizes Available and Recommended Parameter:

Dia/mm	1.2
F	24-35
Amp V & OH	160-320