

SAIW 81K2

GB/T 17493 E551T1-K2C
 AWS A5.36 E81T1-C1A2-K2
 EN ISO 17632-A T46 3 1.5Ni P C 1 H10

Characteristics: SAIW 81K2 is a carbon steel flux cored wire for CO₂ gas shielded welding. It is suitable for all-position welding. Due to its excellent plasticity and low temperature toughness, it is widely used in 550MPa high-strength steel structure. The wire has beautiful bead shape and profile, low spatter, good resistance to gas hole, and stable arc.

Application: It is suitable for welding of offshore platforms, petrochemicals, ships, bridges and containers.

Wire dimension and package

Wire diameter	Package specification	Weight per tray
1.2mm	15kg/vinyl disc	1080kg

Recommended welding specifications

Welding current(A)	Arc voltage(V)	Pre-heat temperature(°C)	Interlayer temperature(°C)	Welding speed (mm/min)	Post-welded heat treatment
160~220	26~31	--	≤100	300~400	--

Chemical composition of deposited metal

Element (wt%)	C	Mn	Si	P	S	Cr	Ni	Mo
Standard value	≤0.15	0.5-1.75	≤0.80	≤0.03	≤0.03	≤0.15	1.0-2.0	≤0.35
Typical value	0.04	1.35	0.37	0.010	0.003	--	1.51	

Mechanical properties of deposited metal

Testing status	Yieldstrength (MPa)	Tensilestrength (MPa)	Elongation(%)	-30°C Impact value(J)	-60°C Impact value(J)
Standard value	≥470	550-690	≥19	≥27	-
As-Welded condition	495	590	28	110	57

Shielding gases, polarity and welding position

Gas composition	Power polarity	Welding position
100%CO ₂		