

SAIW 91B3

GB/T 17493 E621T1-B3C
AWS A5.36 E91T1-C1PZ-B3

Characteristics: SAIW 91B3 is a heat-resistant steel flux cored wire for CO₂ gas shielded welding. It is suitable for all-position welding. The bead shape and profile is beautiful and shiny. Its characteristics include: easy slag removal, low spatter, stable arc and extremely low content of impurity element.

Application: it is suitable for welding low-alloy heat-resistant steel with 2.25%Cr-1%Mo(12Cr2Mo1R) below 550°C, such as petrochemical equipment, high temperature and high pressure pipelines, chemical machinery, etc.

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	0.05-0.12	≤1.25	≤0.80	≤0.03	≤0.03	2.00-2.50	-	0.90-1.20
Typical value	0.06	1.0	0.24	0.003	0.005	2.34	-	1.02

Mechanical properties of deposited metal

Testing status	Yield strength (MPa)	Tensile strength (MPa)	Elongation(%)	Impact value(J)	Post-welded heat treatment
Standard value	≥540	620-760	≥17	≥27	650±50°C 1~1.5h
As-Welded condition	625	725	21	58	

Shielding gases, polarity and welding position

Gas composition	Power polarity	Welding position
100%CO ₂	 DCEP	 RA PB PC PD PE PF PG