

SAIW 1070

GB/T 10858 SAI 1070(Al99.7)
AWS A5.10 ER1070/R1070
EN ISO 18273 SAI 1070(Al99.7)

Characteristics: SAIW 1070 is a kind of pure aluminum welding wire with an Al content of 99.7% or more. It has good bead shap, stable arc, low spatter, excellent welding performance, electrical and thermal conductivity, machining property, corrosion resistance and crack resistance.

Application: widely used in aluminum alloy welding of power facilities, chemical equipment, pipelines, metallurgy and railway locomotives, etc.

Wire chemical composition

Element (wt%)	Si	Fe	Cu	Mn	Mg	Zn	V	Ti	Al
Standard value	0.20	0.25	0.04	0.03	0.03	0.04	0.05	0.030	99.7
Typical value	0.15	0.20	0.04	0.01	0.03	0.02	0.04	0.009	margin

Mechanical properties of deposited metal

Testing status	Tensile strength (MPa)	Yield strength (MPa)	Elongation (%)
Standard value	-	-	-
As-Welded condition	75	30	25

Note: welding method: MIG; shielding gas: 100%Ar

Physical properties of deposited metal

Melting temperature range (°C)	Density (g/mm ³)
645-655	2.70

Shielding gases, polarity and welding position

Gas composition	Power polarity	Welding position
99.99%Ar、 75%Ar+25%He、 50%Ar+50%He		

Recommended welding specifications

Welding method	Wire diameter (mm)	Arc voltage (V)	Welding current (A)	Wire stick-out (mm)	Gas flow rate (L/min)
MIG	1.2	18-26	180-300	15-25	20
	1.6	20-28	200-400	15-25	20
	2.0	22-32	240-450	15-25	20
TIG	1.6-2.5		150-250		20
	2.5-4.0		200-320		20
	4.0-5.0		220-400		20