SAlW 5556

GB/T 10858	SAl 5556(AlMg5Mn1Ti)
AWS A5.10	ER5556/R5556
EN ISO 18273	SAl 5556(AlMg5Mn1Ti)

Characteristics: SAlW 5556 is an aluminum-magnesium alloy wire containing 5% magnesium, 0.8% manganese and a small amount of Cr and Ti. It is suitable for welding aluminum alloy structure with higher strength requirement. It is excellent in crack resistance, bending resistance and corrosion resistance. Additionally, the wire has excellent welding performance, beautiful and delicate weld, stable arc, and low spatter.

Application: It is widely used in the welding of 5000 series high-strength aluminum-magnesium alloys, e.g. welding of aluminum alloys related to industries such as military industry, storage tanks, ships, marine engineering and aviation.

Wire chemical composition

Element (wt%)	Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Al
Standard value	0.25	0.40	0.10	0.5-1.0	4.7-5.5	0.05-0.20	0.25	0.05-0.2	margin
Typical value	0.23	0.30	0.07	0.8	5.1	0.09	0.10	0.09	margin

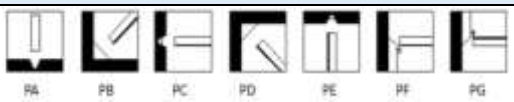
Mechanical properties of deposited metal

Testing status	Tensile strength (MPa)	Yield strength (MPa)	Elongation (%)
Standard value	-	-	-
As-Welded condition	286	145	19

Physical properties of deposited metal

Melting temperature range (℃)	Density (g/mm³)
572-633	2.65

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