SW-309L Cored

Type : Rutile

CE

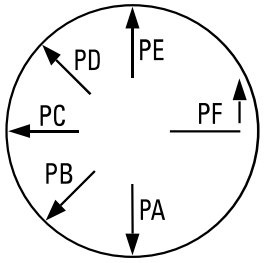
Conformances

AWS	A5.22/ ASME SFA5.22 E309LT1-1/-4
JIS	Z3323 TS309L-FB1
EN	ISO 17633-A-T 23 12 L P M21/C1 2
KR	RW309LG (C) (-20°C ≥34J)
ABS	AWS A5.22 E309LT1-1
LR	SS/CMn(C1), Dup/CMn, SS/CMn(M21)
BV	309L with KV at -20°C (-20°C ≥34J)
DNV·GL	VL 309L(C1)
NK	KW309LG(C)
TÜV	EN ISO 17633-A-T 23 12 L P M21/C1 2
DB	DIN EN ISO 17633-A-T 23 12 L P M21/C1 2
CWB	AWS A5.22 E309LT1-1/4
CE	
RS	A-9sp(309) (C1)

Applications

- 23.5%Cr-13%Ni stainless steels
- Dissimilar welds between carbon, low alloy steels to stainless steels
- Buffer layer welding for cladding, overlays

Welding Position



Features

- Good performance in all positions

Current

DC +

Shielding Gas

100% CO_2

Ar + 20~25% CO_2

Diameter / Packaging

Diameter	Spool			Pac		
mm (in)	5kg (11lbs)	12.5kg (27.6lbs)	15kg (33lbs)	250kg (551lbs)	300kg (661lbs)	350kg (771lbs)
0.9 (0.035)	√	√	√			
1.0 (0.040)	√	√	√			
1.2 (0.045)	√	√	√			
1.4 (0.052)	√	√	√			
1.6 (1/16)		√	√			

Typical Chemical Composition of All-Weld Metal (%)

	C	Si	Mn	P	S	Cr	Ni	Mo
100% CO_2	0.027	0.74	1.27	0.021	0.006	12.99	23.36	0.130
80% Ar + 20% CO_2	0.026	0.86	1.43	0.021	0.006	12.82	23.52	0.130

Typical Mechanical Properties of All-Weld Metal

	TS MPa(lbs/in²)	EL (%)	Temp °C(°F)	CVN-Impact Value J (ft·lbs)
100% CO_2	540 (78,300)	41	-60 (-76)	46 (33.9)
80% Ar + 20% CO_2	580 (84,100)	39	-60 (-76)	40 (29.5)

Typical Welding Parameters

Diameter, Polarity Shielding Gas	CTWD mm (in)	Wire Feed Speed m/min (in/min)	Amp. (A)	Volt. (V)	Deposition Rate kg/hr (lb/hr)
1.2mm (0.045 in) DC+					
100% CO_2	20 (4/5)	6.3 (248)	140	23~26	2.6 (5.7)
		9.0 (354)	180	27~30	3.7 (8.2)
		12.2 (480)	210	28~31	4.7 (10.4)
80% Ar + 20% CO_2	20 (4/5)	6.2 (244)	140	23~26	2.8 (6.2)
		9.0 (354)	180	27~30	3.8 (8.4)
		12.0 (472)	210	27~30	4.9 (10.8)
1.6mm (1/16 in) DC+					
100% CO_2	25 (1)	3.7 (146)	180	24~27	3.0 (6.6)
		6.4 (252)	250	25~28	4.6 (10.1)
		8.8 (346)	290	26~29	5.7 (12.6)
80% Ar + 20% CO_2	25 (1)	3.7 (146)	180	24~27	3.2 (7.1)
		6.3 (248)	250	25~28	4.7 (10.4)
		8.8 (346)	290	26~29	5.9 (13.0)