

SW-316L Cored

Type : Rutile

SW-316L Cored



Conformances

AWS A5.22 / ASME SFA5.22 E316LT1-1/-4
 JIS Z3323 TS316L-FB1
 EN ISO 17633-A-T 19 12 3 L P M/C 2
 KR RW316LG (C) (-60°C ≥34J)
 ABS AWS A5.22 E316LT1-1/-4
 TÜV EN ISO 17633-A - T 19 12 3 L P M21/C1 2
 DB DIN EN ISO 17633-A-T 19 12 3 L P M/C 2

LR 316L
 BV 316L (-60°C)
 DNV 316L
 GL 4435S
 NK KW316LG(C)
 CWB AWS A5.22 E316LT1-1/-4
 CE

Applications

- 18%Cr-12%Ni-2%Mo stainless steels

Features

- Good performance in all positions

Welding Position



1G 2F 3G 4G
 (PA) (PB) (PF) (PE)

Current

DC +

Shielding Gas

100% CO₂
 Ar + 20-25% CO₂

Diameter / Packaging

Diameter mm (in)	Spool			Pac		
	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	0.03	0.75	1.20	0.02	0.01	17.5	11.8	2.7
80% Ar + 20% CO ₂	0.03	0.80	1.30	0.02	0.01	18.0	12.0	2.8

Typical Mechanical Properties of All-Weld Metal

	TS Mpa(lbs/in ²)	EL (%)	Temp °C(°F)	CVN-Impact Value J (ft.-lbs)	Ferrite Number
100% CO ₂	560 (81,200)	42	-20 (4)	45 (33)	8-9
80% Ar + 20% CO ₂	570 (82,650)	41	-20 (4)	40 (30)	8-9

Typical Operating Procedures

Diameter, Polarity Shielding Gas	CTWD mm (in)	Wire Feed Speed m/min (in/min)	Voltage (volts)	Approx. Current (amps)	Deposition Rate kg/hr (lb/hr)
1.2mm (0.045 in) DC+					
100% CO ₂	20 (4/5)	6.0 (236)	23-26	140	2.5 (5.5)
		9.2 (362)	27-30	180	3.4 (7.5)
		12.0 (472)	28-31	210	4.5 (9.9)
80% Ar + 20% CO ₂	20 (4/5)	6.1 (240)	23-26	140	2.6 (5.7)
		9.0 (354)	27-30	180	3.6 (7.9)
		11.5 (453)	27-30	210	4.6 (10.1)
1.6mm (1/16 in) DC+					
100% CO ₂	25 (1)	3.8 (150)	24-27	180	3.0 (6.6)
		6.5 (256)	25-28	250	4.6 (10.1)
		8.9 (350)	26-29	290	5.9 (13.0)
80% Ar + 20% CO ₂	25 (1)	3.7 (146)	24-27	180	3.1 (6.8)
		6.4 (250)	25-28	250	4.8 (10.6)
		8.8 (346)	26-29	290	6.1 (13.4)