

# SW-316L Cored

Type : Rutile



## Conformances

AWS A5.22/ ASME SFA5.22 E316LT1-1/-4  
 JIS Z3323 TS316L-FB1  
 EN ISO 17633-A-T 19 12 3 L P M21/C1 2  
 KR RW316LG (C) (-60°C ≥34J)  
 ABS AWS A5.22 E316LT1-1/-4  
 LR 316L (C1)  
 BV 316L (-60°C) (C1)

DNV-GL VL 316L (C1)  
 NK KW316LG(C)  
 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 M21/C1 2  
 CWB AWS A5.22 E316LT1-1/-4  
 CE  
 RS A-6(316L) (C1)

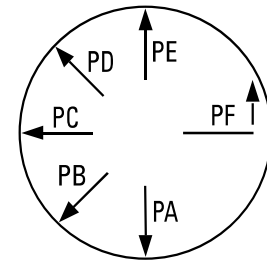
## Applications

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

## Features

- Good performance in all positions

## Welding Position



## Current

DC +

## Shielding Gas

100% CO<sub>2</sub>  
 Ar + 20~25% CO<sub>2</sub>

## 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 <sub>2</sub>	0.025	0.90	1.25	0.013	0.008	11.80	17.54	2.63
80% Ar + 20% CO <sub>2</sub>	0.025	0.92	1.38	0.013	0.008	11.73	17.54	2.63

**Typical Mechanical Properties of All-Weld Metal**

	TS MPa(lbs/in <sup>2</sup> )	EL (%)	Temp °C(°F)	CVN-Impact Value J (ft-lbs)
100% CO <sub>2</sub>	550 (79,750)	45.6	-60 (-76)	45 (33)
80% Ar + 20% CO <sub>2</sub>	555 (80,475)	42.4	-60 (-76)	45 (33)

**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)
<b>1.2mm (0.045 in) DC+</b>					
100% CO <sub>2</sub>	20 (4/5)	6.0 (236)	140	23~26	2.5 (5.5)
		9.2 (362)	180	27~30	3.4 (7.5)
		12.0 (472)	210	28~31	4.5 (9.9)
80% Ar + 20% CO <sub>2</sub>	20 (4/5)	6.1 (240)	140	23~26	2.6 (5.7)
		9.0 (354)	180	27~30	3.6 (7.9)
		11.5 (453)	210	27~30	4.6 (10.1)
<b>1.6mm (1/16 in) DC+</b>					
100% CO <sub>2</sub>	25 (1)	3.8 (150)	180	24~27	3.0 (6.6)
		6.5 (256)	250	25~28	4.6 (10.1)
		8.9 (350)	290	26~29	5.9 (13.0)
80% Ar + 20% CO <sub>2</sub>	25 (1)	3.7 (146)	180	24~27	3.1 (6.8)
		6.4 (250)	250	25~28	4.8 (10.6)
		8.8 (346)	290	26~29	6.1 (13.4)