

# Supercored 316L

Type : Rutile



## Conformances

AWS A5.22/ ASME SFA5.22 E316LT0-1/-4

JIS Z3323 TS316L-FB0

EN ISO 17633-A-T 19 12 3 L R M21/C1 3

TÜV EN ISO 17633-A-T 19 12 3 L R M21/C1 3

DB DIN EN ISO 17633-A-T 19 12 3 L R M21/C1 3

CE

LR 316L (M21)

BV 316L (M21)

DNV-GL VL 316L (-20°C) (M21)

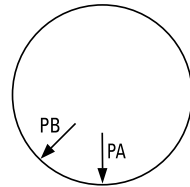
## Applications

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

## Features

- Flat and horizontal fillet position welding
- High deposition rate and efficiency

## Welding Position



## Current

DC +

## Shielding Gas

100% CO<sub>2</sub>

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

## 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)	✓	✓	✓			
1.6 (1/16)		✓	✓			

**Typical Chemical Composition of All-Weld Metal (%)**

	C	Si	Mn	P	S	Cr	Ni	Mo
100% CO <sub>2</sub>	0.03	0.50	1.50	0.02	0.01	17.8	11.8	2.7
80% Ar + 20% CO <sub>2</sub>	0.03	0.60	1.60	0.02	0.01	18.0	12.0	2.8

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

	TS MPa(lbs/in <sup>2</sup> )	EL (%)	Temp °C(°F)	CVN-Impact Value J (ft-lbs)	Ferrite Number
100% CO <sub>2</sub>	550 (79,750)	40	-20 (-4)	50 (37)	8-10
80% Ar + 20% CO <sub>2</sub>	560 (81,200)	39	-20 (-4)	45 (33)	8-10

**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	2.7 (5.9)
		9.2 (362)	180	27-30	3.6 (7.9)
		12.0 (472)	210	28-31	4.7 (10.4)
80% Ar + 20% CO <sub>2</sub>	20 (4/5)	6.1 (240)	140	23-26	2.7 (5.9)
		9.0 (354)	180	27-30	3.7 (8.2)
		11.5 (453)	210	27-30	4.8 (10.6)
<b>1.6mm (1/16 in) DC+</b>					
100% CO <sub>2</sub>	25 (1)	3.8 (150)	180	24-27	3.4 (7.5)
		6.5 (256)	250	25-28	4.9 (10.8)
		8.9 (350)	290	26-29	6.3 (13.9)
80% Ar + 20% CO <sub>2</sub>	25 (1)	3.7 (146)	180	24-27	3.5 (7.7)
		6.4 (250)	250	25-28	5.0 (11.0)
		8.8 (346)	290	26-29	6.4 (14.1)

SAW

SAW

GMAW

GTAW

FCAW

Non-FERROUS

APPENDIX