SelectAlloy 316L

Stainless Steel / Gas Shielded / Flux Cored

PRODUCT DATA SHEET

FEATURES

- Low C, < 0.04 wt%, minimizes carbide precipitation (sensitization) which makes the weld metal more resistant to intergranular corrosion.
- The addition of Mo improves resistance to pitting and crevice corrosion compared to type 308 stainless steel.
- Produces a finely rippled, equal legged, and well washed bead geometry in both 100% CO2 or 75-80% Ar/balance CO2 shielding gas
- Smooth arc transfer and self-releasing slag that peels freely to ensure that clean up time is minimized.
- Applications for this alloy type include welding in the pulp and paper industry, chemical and textile processing equipment, furnace parts and in parts exposed to marine environments. Alloy types for welding include 316 stainless and similar alloys, such as A743 and A744 as well as CF-3M and CF-8M.

CONFORMANCES

AWS A5.22	E316LT0-1
	E316LT0-4
	E316T0-1
	E316T0-4
ASME SFA 5.22	E316LT0-1
	E316LT0-4
	E316T0-1
	E316T0-4

DIAMETERS [in [mm]]

0.035 (0.9), 0.045 (1.2), 1/16 (1.6)

POSITIONS

SHIELDING GAS

75-80% Ar + Balance CO2, 100% CO2
Flow Rate: 40 - 50 CFM

POLARITY

Direct Current Electrode Positive (DCEP)

TYPICAL WELD DEPOSIT CHEMISTRY [WT%]

Shielding Gas	Bi	C	Cr	Cu	Mn	Mo	Ni	P	S	Si	WRC-1992 Ferrite
100%CO2	>0.002	0.03	19.10	0.36	1.38	2.45	11.80	0.02	<0.01	0.70	7
75%Ar / 25%CO2	>0.002	0.03	19.30	0.30	1.58	2.48	11.90	0.02	0.01	0.82	8

TYPICAL MECHANICAL PROPERTIES

Shielding Gas	Tensile Strength ksi (MPa)	Yield Strength ksi (MPa)	Elongation (%)	Weld Condition	PWHT Temp
100%CO2	84 (579)	60 (414)	40	As-Welded	-
75%Ar / 25%CO2	87 (600)	62 (428)	38	As-Welded	-

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RECOMMENDED WELDING PARAMETERS

Diameter in (mm)	Shielding Gas	Position	WFS* in/min (m/min)	Amps	Volts	CTWD* in (mm)
0.035 (0.9 mm)	75% Ar/25% CO2	Flat & Horizontal	375 (9.5)	120	25	1/2 (13)
		Flat & Horizontal	590 (15.0)	150	28	1/2 (13)
		Flat & Horizontal	690 (17.5)	165	30	5/8 (16)
0.045 (1.2 mm)	75% Ar/25% CO2	Flat & Horizontal	210 (5.3)	145	24	1/2 (13)
		Flat & Horizontal	390 (9.9)	185	28	5/8 (16)
		Flat & Horizontal	550 (14.0)	235	32	3/4 (19)
1/16 (1.6 mm)	75% Ar/25% CO2	Flat & Horizontal	155 (3.9)	180	24	5/8 (16)
		Flat & Horizontal	235 (6.0)	220	27	3/4 (19)
		Flat & Horizontal	300 (7.6)	265	31	1 (25)

** WFS = Wire Feed Speed, CTWD = Contact Tip To Work Distance*

Parameters were established in 75% Ar/25% CO2. Raise by 1-1.5 volts when using 100% CO2.

APPROVALS

Agency	Approval	Shielding Gas	Diameter(s) in (mm)
ABS	E316LT0-1	C1 (100%CO2)	0.035 (0.9) - 1/16 (1.6)
	E316LT0-4	M21 (75%Ar / 25%CO2)	0.035 (0.9) - 1/16 (1.6)
CWB CSA W48-23	E316LT0-1	C1 (100%CO2)	0.035 (0.9) - 1/16 (1.6)
	316LT0-4	M21 (75%Ar / 25%CO2)	0.035 (0.9) - 1/16 (1.6)

PACKAGING [lbs [kgs]]

33 (15) Spools, 60 (27.2) Coils, 500 (226.8) Round Drum, 800 (362.9) Hex Drum, 900 (408.2) Hex Drum

**Some packaging options may not be available depending on diameter and product. Special package options may be available upon request.*

STORAGE AND HANDLING

All products should be stored in original packaging, in dry conditions and handled with care. For more information refer to our website.

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