



T H E H A R R I S P R O D U C T S G R O U P
A L I N C O L N E L E C T R I C C O M P A N Y
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TECHNICAL SPECIFICATION SHEET

316LT1-1 FLUX CORED STAINLESS STEEL WELDING WIRE

STATEMENT OF LIABILITY- DISCLAIMER

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APPLICATION:

Used to join similar metals such as AISI 316L, 316, 316Ti, and 318. The typical 2.7% Molybdenum gives improved resistance to pitting and crevice corrosion over grades 308L and 309L, particularly in the presence of chlorides. This material is generally used with 100% CO₂ or mixtures of Argon and CO₂, typically 75%-25% mixtures. Recommended wire stick out is 5/8"-3/4".

NOMINAL COMPOSITION:

Carbon	.04% max	Chromium	17-20%
Nickel	11-14%	Manganese	.50-2.5
Copper	50% max.	Silicon	1%
Phosphorus	.04% max	Sulfur	.03% max
Molybdenum	2-3%	Iron	Balance

Typical MECHANICAL PROPERTIES AS WELDED:

Yield Strength	56,000 psi
Elongation	30% min
Tensile Strength	83,000 psi

RECOMMENDED WELDING PARAMETERS:

FCAW Parameters (DC Reverse Polarity) Electrode Positive

Wire Diameter	Welding Position	Joint Type	Plate Thickness	Amps	Volts	Deposition ipm
.035	Flat	Butt	1/8"	70-90	25-27	12-16
.035	Flat	Butt	1/4"	120-130	26-29	10-14
.035	Flat	Fillet	1/4"	110-130	26-29	12-16
.035	Vertical up	Butt& Fillet	3/8"	70-90	22-25	6-10
.035	Horizontal	Butt	3/32"	100-120	24-27	12-16
.035	Overhead	Fillet	3/8"	150-200	26-28	8-12
.45	Flat	Butt	1/4"	180-200	29-32	12-16
.45	Flat	Fillet	3/8"	170-200	28-32	10-16
.45	Vertical up	Butt& Fillet	3/8"	110-140	21-24	4-8
.45	Horizontal	Butt	1/4"	150-180	26-30	10-16
.45	Overhead	Fillet	3/8"	150-200	26-28	10-14
1/16	Flat	Butt	1/4"	210-220	27-30	14-16
1/16	Flat	Fillet	3/8"	220-250	27-31	12-18
1/16	Vertical up	Butt& Fillet	3/8"	130-160	21-24	6-8
1/16	Horizontal	Butt	1/4"	150-200	26-30	10-16
1/16	Overhead	Fillet	3/8"	150-200	27-30	12-14

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* All parameters are suggested as basic guidelines and will vary depending on joint design, number of passes and other factors.
SPECIFICATION COMPLIANCE: ANSI/AWS A5.22 & ASME SFA 5.22 E 316LT1-1

WARNING: PROTECT yourself and others. Read and understand this information.

FUMES AND GASES can be hazardous to your health.

ARC RAYS can injure eyes and burn skin.

ELECTRIC SHOCK can KILL.

- Before use, read and understand the manufacturer's instructions, Material Safety Data Sheets (MSDS), and your employer's safety practices.
- Keep your head out of fumes.
- Use enough ventilation, exhaust at the arc, or both, to keep fumes and gases from your breathing zone and the general area.
- Wear correct eye, ear, and body protection.
- Do not touch live electrical parts.
- See American National Standard Z49.1, *Safety in Welding, Cutting, and Allied Processes*, published by the American Welding Society, 550 N.W. LeJeune Road, Miami, Florida 33126; OSHA Safety and Health Standards, available from the U.S. Government Office, Washington, DC 20402.

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