



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

308LT1-1 FLUX CORED STAINLESS STEEL WELDING WIRE

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APPLICATION:

Used to join base metals of similar composition, such as AISI 301, 303, 304, 305, 308, 308L, 347. By specifying low carbon in this alloy, it is possible to obtain resistance to inter granular corrosion due to carbide precipitate without the use of stabilizers such as Columbium or Titanium. This material is generally used with 100% Carbon Dioxide, or mixtures of Argon and Carbon Dioxide, typically 75%-25% mixture. Suggested wire stick out is 5/8"-3/4".

NOMICAL COMPOSTION:

Carbon	.04% max	Chromium	18-21%
Nickel	9-11%	Manganese	.50-2.5%
Copper	50% max	Silicon	1%
Phosphorus	.04% max	Sulfur	.03% max
Molybdenum	.50% max	Iron	Balance

PHYSICAL PROPERTIES:

Yield Strength	50,000 psi
Tensile Strength	83,000 psi
Elongation	35% min

TYPICAL MECHANICAL PROPERTIES AS WELDED:

(Properties are greatly influenced by the preheat, inter-pass and post-heat used)

Tensile Strength (psi)	84,000	Impact Strength @120°F	35 ft-lbs
Elongation % in 2"	19%		
Yield Strength (psi)	71,500		

OPTIMUM WELDING PARAMETERS:

*FCAW Parameters (DC Reverse Polarity) Electrode Positive with 75/25 Argon / CO₂

<u>Base Metal</u>	<u>Amps</u>	<u>Volts</u>	<u>Wire Feed Speed imp</u>
28 gauge	65-70	15.5	130
20 gauge	80	17.5	200
16 gauge	130	24	350
1/8"	160	26	450
1/4"	205	39	700

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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

* 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 E308LT1-1

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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