



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

309L-16 STAINLESS STEEL COVERED ELECTRODE

STATEMENT OF LIABILITY- DISCLAIMER

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NOMINAL COMPOSITION:

Carbon	.04% max.	Chromium	22.0-25.0%
Nickel	12.0-14.0%	Manganese	.5-2.5 %
Copper	.75% max.	Silicon	.90% max.
Phosphorus	.04% max.	Sulfur	.03% max.
Molybdenum	.75% max.	Iron	Balance
Normal Ferrite Range	4-10		

TYPICAL MECHANICAL PROPERTIES AS WELDED:

Yield Strength (psi)	65,000	Elongation	37%
Tensile Strength (psi)	88,000		

WELDING PROPERTIES:

The nominal composition of this weld metals is 24% Chromium and 13% Nickel with .04% max. carbon to increase resistance to intergranular corrosion by reducing carbide precipitation. Electrodes of this composition are most often used to weld base metals of similar composition in wrought or cast form. Sometimes may be used to weld 304, similar base metals, (and L series) where corrosion conditions exist also used on dissimilar steels.

309L-16 is a titania type coating for either alternating current (AC) or direct current (DC) reverse polarity.
309L-15 is a lime type coating for use with direct current (DC) reverse polarity.

RECOMMENDED WELDING PARAMETERS:

	<u>3/32 X 12</u>	<u>1/8 X 14</u>	<u>5/32 X 14</u>
AMPS	50-80	70-110	100-140

All parameters are suggested as basic guidelines and will vary depending on joint design, number of passes and other factors.

SPECIFICATION COMPLIANCE: ANSI/AWS A5.4 & ASME SFA 5.4 E 309L-16

All statements, information and data given are believed to be accurate and reliable but are presented without guarantee, warranty or responsibility of any kind, expressed or implied.

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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 (MSDSs), 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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