



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

309-16 STAINLESS STEEL COVERED ELECTRODE

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NOMINAL COMPOSITION:

Carbon	.15% 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)	67,000	Elongation	40%
Tensile Strength (psi)	89,000		

WELDING PROPERTIES:

The nominal composition of this weld metals is 24% Chromium and 13% Nickel. 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 and similar base metals where corrosion conditions exist also used on dissimilar steels.

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

309-15 is a lime type coating for use with direct current (DC) reverse polarity.

RECOMMENDED WELDING PARAMETERS:

	<u>1/16 X 12</u>	<u>5/64 X 12</u>	<u>3/32 X 12</u>	<u>1/8 X 14</u>	<u>5/32 X 14</u>	<u>3/16 X 14</u>	<u>1/4 X 14</u>
AMPS	15-40	30-60	50-80	70-110	100-140	130-180	175-220

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 309-16

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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