



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

### 312-16 STAINLESS STEEL COVERED ELECTRODE

#### STATEMENT OF LIABILITY- DISCLAIMER

Any suggestion of product applications or results is given without representation or warranty, either expressed or implied. Without exception or limitation, there are no warranties of merchantability or of fitness for particular purpose or application. The user must fully evaluate every process and application in all aspects, including suitability, compliance with applicable law and non-infringement of the rights of others. The Harris Products Group and its affiliates shall have no liability in respect thereof.

#### NOMINAL COMPOSITION:

Carbon	.15% max.	Chromium	28.0-32.0%
Nickel	8.0-10.5%	Manganese	.5-2.5 %
Copper	.75% max.	Silicon	.90% max.
Phosphorus	.04% max.	Sulfur	.03% max.
Molybdenum	.75% max.	Iron	Balance

#### TYPICAL MECHANICAL PROPERTIES AS WELDED:

Yield Strength (psi)	95,000	Elongation	25%
Tensile Strength (psi)	115,000		

#### WELDING PROPERTIES:

The nominal composition of this weld metals is 30% Chromium and 9% Nickel. Electrodes of this composition are most often used to weld base metals of similar composition and may be used on dissimilar steels.

312-16 is a titania type coating for either alternating current (AC) or direct current (DC) reverse polarity.

312-15 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 312-16

**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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Additional information available at our web site: [www.harrisproductsgroup.com](http://www.harrisproductsgroup.com)

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