



# TECHNICAL INFORMATION SHEET

## NIC-L-WELD™ 59 ELECTRODE

### PRODUCT INFORMATION:

NIC-L-WELD™ 59 electrode (AC-DC) is a general purpose, nickel-iron electrode for production, salvage and repair of all cast irons.

### TYPICAL AS WELDED MECHANICAL PROPERTIES:

Tensile Strength: Up to 70,000PSI  
Yield Strength: Up to 80,000 PSI  
Elongation: 18% minimum

### GENERAL WELDING PROCEDURE:

- Use AC or DC reverse polarity with a short arc. Prepare the weld joint by cleaning and beveling as required
- Use HARRIS CHAMFER ARC for grooving, tack weld cracks,
- Generally, preheating is not necessary on thin sections; Preheat of 400F - 500F is a good recommendation for welding heavier castings
- Stringer beads provide the best performance; however, a slight weave also provides good welds.
- Skip or back-step weld. Short deposits no longer than 1 1/2" provide the best outcome.
- Peen each bead while still hot to stress relieve. Allow casting to cool slowly

### SUGGESTED WELD SETTINGS:

3/32	1/8	5/32	3/16
50 – 80 AMPS	80 – 120 AMPS	110 – 140 AMPS	130 – 170 AMPS

### SPECIFICATION COMPLIANCE:

- Conforms to AWS A5.15, ENiFeCl

### SAFETY INFORMATION:

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

ARC RAYS can injure eyes and burn skin.

FUMES AND GASES can be hazardous to your health.

HEAT RAYS, (infrared radiation) from flame or hot metal can injure eyes.

ELECTRIC SHOCK can kill.

- Before use, read and understand the manufacturer's instructions, Safety Data Sheets (SDS), 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 gas 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, 8669 Doral Blvd., Doral, Florida 33166; OSHA Safety and Health Standards, available from the U.S. Government Office, Washington, DC 20402.

**WARNING:** This product contains or produces a chemical known to the State of California to causes cancer and birth defects, (or other reproductive harm).

### 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.

### THE HARRIS PRODUCTS GROUP

A LINCOLN ELECTRIC COMPANY



4501 Quality Place • Mason, OH 45040 U.S.A Tel: 513-754-2000 Fax: 513-754-6015

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