

# TECH-ROD® 187

Nickel ▪ AWS ECuNi

## KEY FEATURES

- A copper-nickel electrode for welding alloys of similar composition as well as 80/20 and 90/10 Cu/Ni alloys
- Q2 Lot® - certificates showing actual deposit composition available online

## CONFORMANCES

|                             |        |
|-----------------------------|--------|
| <b>AWS A5.6/A5.6M: 2008</b> | ECuNi  |
| <b>ASME SFA-A5.11</b>       | ECuNi  |
| <b>UNS</b>                  | W60715 |

## TYPICAL APPLICATIONS

- Marine applications
- Good resistance to the corrosive effects of sea water
- Used for the clad side of copper-nickel clad steels

## DIAMETERS / PACKAGING

| Diameter<br>in (mm) | Length<br>in (mm) | 8 lb (3.6 kg) Can<br>24 lb (10.9 kg) Master Carton | 10 lb (4.5 kg) Can<br>30 lb (13.6 kg) Master Can |
|---------------------|-------------------|----------------------------------------------------|--------------------------------------------------|
| 3/32 (2.4)          | 12 (305)          | EL187093632                                        | EL187125634                                      |
| 1/8 (3.2)           | 14 (355)          |                                                    |                                                  |

## MECHANICAL PROPERTIES - As Required per AWS A5.6/A5.6M: 2008

|                                              | Tensile Strength<br>Mpa (ksi) | Elongation % |
|----------------------------------------------|-------------------------------|--------------|
| <b>Requirements</b><br>AWS A5.11/A5.11M:2010 | 345 (50 min)                  | 20 min       |
| <b>Typical Performance</b><br>Tech-Rod® 187  | 360 (52)                      | 24           |

## DEPOSIT COMPOSITION<sup>(1)</sup> - As Required per AWS A5.6: 2008

|                                                           | %Mn         | %Fe         | %P        | %Si      | %Cu       |
|-----------------------------------------------------------|-------------|-------------|-----------|----------|-----------|
| <b>Requirements</b><br>AWS ECuNi                          | 1.00 - 2.50 | 0.40 - 0.75 | 0.020 max | 0.50 max | Remainder |
| <b>Typical Performance<sup>(2)</sup></b><br>Tech-Rod® 187 | 1.58        | 0.60        | 0.001     | 0.01     | 63.0      |
|                                                           | %Ni         | %Ti         | %Pb       | %Other   |           |
| <b>Requirements</b><br>AWS ECuNi                          | 29.0 - 33.0 | 0.50 max    | 0.02 max  | 0.50 max |           |
| <b>Typical Performance<sup>(2)</sup></b><br>Tech-Rod® 187 | 30.4        | 0.24        | 0.001     | <0.50    |           |

## TYPICAL OPERATING PROCEDURES

| Diameter<br>in (mm) | Length<br>in (mm) | Flat   | Amperage | Vertical & Overhead |
|---------------------|-------------------|--------|----------|---------------------|
| 3/32 (2.4)          | 12 (305)          | 70-85  | 85-110   | 65-75               |
| 1/8 (3.2)           | 14 (355)          | 85-110 |          | 80-90               |

<sup>(1)</sup>Typical all wire chemistry. <sup>(2)</sup>See test results disclaimer on pg. 13.  
Safety Data Sheets (SDS) are available on our website at [www.lincolnelectric.com](http://www.lincolnelectric.com)

*Material Safety Data Sheets (MSDS) and Certificates of Conformance are available on our website at [www.lincolnelectric.com](http://www.lincolnelectric.com)*

#### TEST RESULTS

Test results for mechanical properties, deposit or electrode composition and diffusible hydrogen levels were obtained from a weld produced and tested according to prescribed standards, and should not be assumed to be the expected results in a particular application or weldment. Actual results will vary depending on many factors, including, but not limited to, weld procedure, plate chemistry and temperature, weldment design and fabrication methods. Users are cautioned to confirm by qualification testing, or other appropriate means, the suitability of any welding consumable and procedure before use in the intended application.

#### CUSTOMER ASSISTANCE POLICY

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Subject to Change – This information is accurate to the best of our knowledge at the time of printing. Please refer to [www.lincolnelectric.com](http://www.lincolnelectric.com) for any updated information.

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THE LINCOLN ELECTRIC COMPANY  
22801 St. Clair Avenue ■ Cleveland, OH ■ 44117-1199 ■ U.S.A.  
Phone: +1.216.481.8100 ■ [www.lincolnelectric.com](http://www.lincolnelectric.com)

