

# LINCOLNWELD® L-61®

Mild Steel Solid Electrode ■ AWS EM12K



## KEY FEATURES

- Industry standard for submerged arc welding applications
- A low carbon, medium manganese, low silicon general purpose submerged arc electrode
- A good choice for a wide range of applications with single or multiple pass subarc welding
- Actual (Type 3.1) certificates for each lot of wire showing chemical composition are available in the certificate center of lincolnelectric.com

## CONFORMANCES

|                         |           |
|-------------------------|-----------|
| <b>AWS A5.17/A5.17M</b> | EM12K     |
| <b>AWS A5.23:</b>       | EM12K     |
| <b>MIL-E-23765/4:</b>   | MIL-EM12K |
| <b>EN 756:</b>          | S2Si      |

## RECOMMENDED FLUXES

Lincolnweld® 760®, 761®, 780®, 781™, 860®, 865™, 882™, 888™, 761-Pipe™, P223™, 960®, 980™, WTX™, AXXX-10™, 995N™, SPX80™

## DIAMETERS / PACKAGING

| Diameter<br>in. (mm) | 60 lb (27.2 kg)<br>Coil             | 250 lb (113 kg)<br>Speed Feed® SlimReel™ | 300 lb (136 kg)<br>Speed Feed® Reel  | 300 lb (136 kg)<br>Speed Feed® Drum  |
|----------------------|-------------------------------------|--|--------------------------------------|--------------------------------------|
| 1/16 (1.6)           | ED011803                            |  |                                      |                                      |
| 5/64 (2.0)           | ED011825, ED030756*                 |  |                                      |                                      |
| 3/32 (2.4)           | ED011815, ED033875*                 | ED033074                                 |                                      |                                      |
| 1/8 (3.2)            | ED011807, ED033876*                 | ED033075                                 |                                      |                                      |
| 5/32 (4.0)           | ED011821, ED033877*, ED032097**     | ED033076                                 | ED030412                             | ED030628                             |
| 3/16 (4.8)           | ED011812, ED034055*                 |  |                                      |                                      |
| Diameter<br>in. (mm) | 600 lb (272 kg)<br>Speed Feed® Drum | 750 lb (340 kg)<br>Speed Feed® Reel      | 1000 lb (453 kg)<br>Speed Feed® Drum | 2200 lb (998 kg)<br>Speed Feed® Stem |
| 1/16 (1.6)           |                                     |  |                                      |                                      |
| 5/64 (2.0)           | EDS11823                            | ED011826                                 | ED011824                             |                                      |
| 3/32 (2.4)           | EDS11813                            | EDS11817                                 | ED011814, ED034043*                  |                                      |
| 1/8 (3.2)            | EDS11805                            | EDS11809                                 | ED011806, ED034044*                  | ED032973                             |
| 5/32 (4.0)           | EDS11819                            | ED030012                                 | ED011820, ED034045*, ED030703**      | ED032972                             |
| 3/16 (4.8)           |                                     |  | ED011811                             | ED032994                             |

\*Buy America Product \*\*Tested Material

## WIRE COMPOSITION<sup>(1)</sup> - As Required per AWS A5.17/A5.17M

|                    | %C        | %Mn       | %Si       | %S    | %P    | %Cu  |
|--------------------|-----------|-----------|-----------|-------|-------|------|
| Lincolnweld® L-61® | 0.05-0.15 | 0.80-1.25 | 0.10-0.35 | 0.030 | 0.030 | 0.35 |

<sup>(1)</sup>Single values are maximums.

*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

The Lincoln Electric Company is manufacturing and selling high quality welding equipment, consumables, and cutting equipment. Our challenge is to meet the needs of our customers and to exceed their expectations. On occasion, purchasers may ask Lincoln Electric for information or advice about their use of our products. Our employees respond to inquiries to the best of their ability based on information provided to them by the customers and the knowledge they may have concerning the application. Our employees, however, are not in a position to verify the information provided or to evaluate the engineering requirements for the particular weldment. Accordingly, Lincoln Electric does not warrant or guarantee or assume any liability with respect to such information or advice. Moreover, the provision of such information or advice does not create, expand, or alter any warranty on our products. Any express or implied warranty that might arise from the information or advice, including any implied warranty of merchantability or any warranty of fitness for any customers' particular purpose is specifically disclaimed.

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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.