



Lincolnweld® 960®

Special Neutral Flux • EN 760 – S A AB 1

Key Features

- ▶ Low cost, general purpose flux designed to weld butt joints and both single and multiple pass fillets
- ▶ Recommended for automatic and semiautomatic submerged arc welding
- ▶ A versatile, cost-effective flux that can be used with many alloy systems
- ▶ Can be used on A588 weathering steels when combined with Lincolnweld® LA-75

Typical Applications

- ▶ Single and multiple pass welding
- ▶ Fillet and butt welds with unlimited plate thickness
- ▶ Can weld steel with heavy scale or rust when used with Lincolnweld® L-50® wire
- ▶ Weathering steels when used with Lincolnweld® LA-75 wire

Recommended Wires

- For Mild Steel
Lincolnweld® L-50®, L-61®, LA-71
- For Low Alloy Steel
Lincolnweld® LA-75, LA-85, LA-93, LA-100

Product Information

Basicity Index: 1.1
Density: 1.4 g/cm³

AWS D1.8 and FEMA 353

- Approved when paired with the following wires:
- 3/32 in (2.4 mm) Lincolnweld® L-56®
 - 1/8 in (3.2 mm) Lincolnweld® L-61®
 - 1/8 in (3.2 mm) Lincolnweld® LA-85

Packaging

50 lb (22.7 kg) Bag ED022412

FLUX COMPOSITION⁽¹⁾

| | %SiO ₂ | %MnO | %MgO | %CaF ₂ | %Na ₂ O | %Al ₂ O ₃ | %CaO | %TiO ₂ | % Metal Alloys |
|-------------------|-------------------|------|------|-------------------|--------------------|---------------------------------|------|-------------------|----------------|
| Lincolnweld® 960® | 21 | 10 | 21 | 10 | 2 | 31 | 1 | 1 | 3 max. |

AWS TEST RESULTS⁽¹⁾

| Flux/Wire Combination | Weld Condition | Yield Strength ⁽²⁾ MPa (ksi) | Tensile Strength MPa (ksi) | Elongation (%) | Charpy V-Notch J (ft•lbf) @ °C (°F) | | AWS Classification (A5.17/A5.23) |
|-----------------------|--------------------------------|--|-------------------------------|----------------|--|-----------|-------------------------------------|
| L-50® | As-welded | 460 (66) | 570 (83) | 27 | 58 (43) | -29 (-20) | F7A2-EM13K-H8 |
| L-61® | As-welded | 420 (61) | 520 (75) | 32 | 125 (92) | -29 (-20) | F7A2-EM12K-H8 |
| LA-71 | As-welded | 460 (66) | 570 (82) | 29 | 44 (32) | -29 (-20) | F7A2-EM14K-H8 |
| LA-71 | Stress-relieved ⁽³⁾ | 420 (61) | 540 (79) | 31 | 89 (66) | -29 (-20) | F7P2-EM14K-H8 |
| LA-75 | As-welded | 480 (69) | 600 (87) | 30 | 76 (56) | -29 (-20) | F8A2-ENi1K-Ni1-H8 |
| LA-75 | Stress-relieved ⁽³⁾ | 420 (61) | 550 (80) | 29 | 53 (39) | -51 (-60) | F7P6-ENi1K-Ni1-H8 |
| LA-85 | As-welded | 520 (76) | 640 (93) | 24 | 57 (42) | -29 (-20) | F8A2-ENi5-G-H8 |
| LA-85 | Stress-relieved ⁽³⁾ | 500 (73) | 610 (88) | 25 | 39 (29) | -46 (-50) | F7P5-ENi5-G-H8 |
| LA-93 | Stress-relieved ⁽⁴⁾ | 580 (84) | 680 (98) | 22 | 65 (48) | -18 (0) | F9P0-EB3R-G-H8 |
| LA-100 | As-welded | 680 (99) | 740 (108) | 25 | 33 (24) | -40 (-40) | F10A4-EM2-G-H8 |

⁽¹⁾See test results disclaimer below. ⁽²⁾Measured with 0.2% offset. ⁽³⁾Stress-relieved for 1 hour at 621°C (1150°F). ⁽⁴⁾Stress-relieved for 1 hour at 691°C (1275°F).
NOTE: For the most up-to-date AWS certificates of conformance please visit www.lincolnelectric.com

Material Safety Data Sheets (MSDS) and Certificates of Conformance are available on our website at 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 for any updated information.