

Lincolnweld® 781™

EN 760 – S A ZS 1 • 700 Series Active Flux

Recommended Wires

For Mild Steel

Lincolnweld® L-50®, L-60, and L-61®

For Low Alloy Steel

Lincolnweld® L-70

Key Features

- ▶ Features fast follow characteristics that allow for uniform welds at high speeds without undercut or voids
- ▶ Recommended for high speed, limited pass welding on clean plate and sheet steel
- ▶ Good wetting action

Product Information

Basicity Index: 0.8

Density: 1.5 g/cm³

Typical Applications

- ▶ Single pass welding – on clean plate and sheet metal up to 48 mm (3/16 in) in thickness
- ▶ Hot water tanks, metal buildings and other applications requiring high speed welds

Packaging

50 lb (22.7 kg) Bag

ED019587

FLUX COMPOSITION⁽¹⁾

	%SiO ₂	%MnO	%MgO	%CaF ₂	%Na ₂ O	%Al ₂ O ₃	%ZrO ₂	%TiO ₂	%CaO	% Metal Alloys
Lincolnweld® 781®	21	17	14	5	2	4	21	12	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	530 (77)	610 (89)	29	38 (28)	-18 (0)	F7A0-EM13K
L-60	As-welded	460 (67)	550 (80)	29	42 (31)	-18 (0)	F7A0-EL12
L-61®	As-welded	530 (77)	610 (89)	28	31 (23)	-18 (0)	F7A0-EM12K
L-70	As-welded	590 (85)	660 (96)	25	35 (26)	-18 (0)	F9A0-EA1-G

⁽¹⁾See test results disclaimer below. ⁽²⁾Measured with 0.2% offset.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.

Lincoln Electric is a responsive manufacturer, but the selection and use of specific products sold by Lincoln Electric is solely within the control of, and remains the sole responsibility of the customer. Many variables beyond the control of Lincoln Electric affect the results obtained in applying these types of fabrication methods and service requirements.

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.