

# LINCOLNWELD® SPX80™

Flux for Seam Welding of Pipe ■ EN ISO 14174 – S A AB 1

## KEY FEATURES

- Designed to meet the specific requirements of spiral pipe seam welding of up to API X80 grade pipe
- High speed welding capability for increased productivity
- Capable of producing weld deposits with impact properties exceeding 27 J (20 ft•lbf) at -51°C (-60°F) with Lincolnweld® LA-81
- Smooth bead profile achieves optimal appearance on both inner and outer diameter welds
- Self-peeling slag allows for clean and easy slag removal for reliable non-destructive testing results
- Actual (Type 3.1) certificates for each lot of flux showing chemical composition, particle size and moisture level are available in the certificate center of lincolnelectric.com

## TYPICAL APPLICATIONS

- Spiral pipe mills
- Weld up to API X80 pipe
- Two run welding applications

## RECOMMENDED WIRES

Mild Steel  
Lincolnweld® L-61®

Low Alloy Steel  
Lincolnweld® L-70, LA-81, LA-90

## PACKAGING

50 lb (22.7 kg) Plastic Bag                      ED032960  
2600 lb (1179 kg) Bulk Bag                      ED033319

## PRODUCT INFORMATION

Basicity Index:            1.2  
Density:                    1.2 g/cm<sup>3</sup>

## FLUX COMPOSITION<sup>(1)</sup>

	%SiO <sub>2</sub>	%MnO	%MgO	%CaF <sub>2</sub>	%NaO	%Al <sub>2</sub> O <sub>3</sub>	%CaO	%ZrO <sub>2</sub>	%FeO	%TiO <sub>2</sub>
Lincolnweld® SPX80™	21	9	21	14	1	28	3	2	1	1

## AWS TEST RESULTS<sup>(1)</sup> - TWO RUN

Flux/Wire Combination	Steel Type	Weld Condition	Yield Strength <sup>(2)</sup> MPa (ksi)	Tensile Strength MPa (ksi)	Elongation (%)	Charpy V-Notch		AWS Classification (A5.17/A5.23)
						J (ft•lbf)	@ °C (°F)	
LA-81	X80	As-welded	550 (80)	640 (93)	28	40 (29)	-40 (-40)	F9TA4-EA2TiB

<sup>(1)</sup>See test results disclaimer on next page <sup>(2)</sup>Measured with 0.2% offset. NOTE: For the most up-to-date AWS certificates of conformance please visit [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

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](http://www.lincolnelectric.com) for any updated information.