



LINCOLNWELD SPX80/SPX80N

SUBMERGED ARC (SAW) FLUX

LINCOLN[®]
ELECTRIC

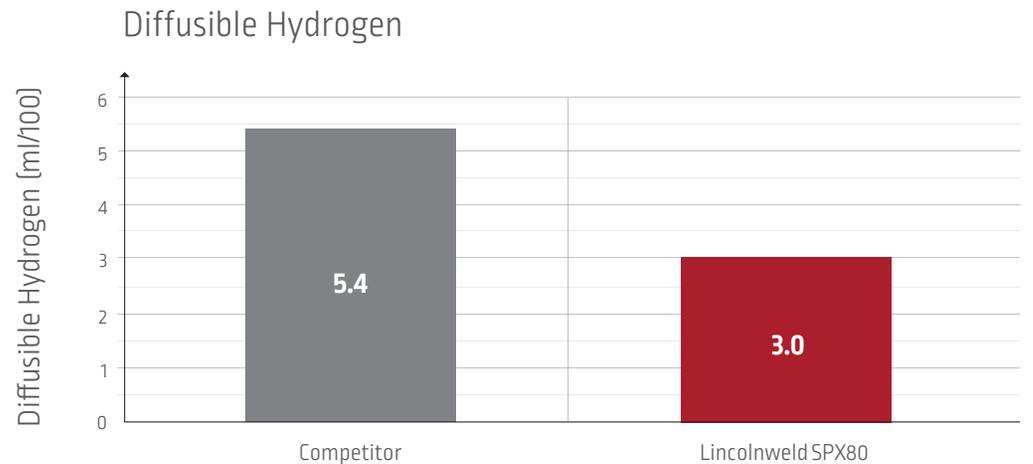
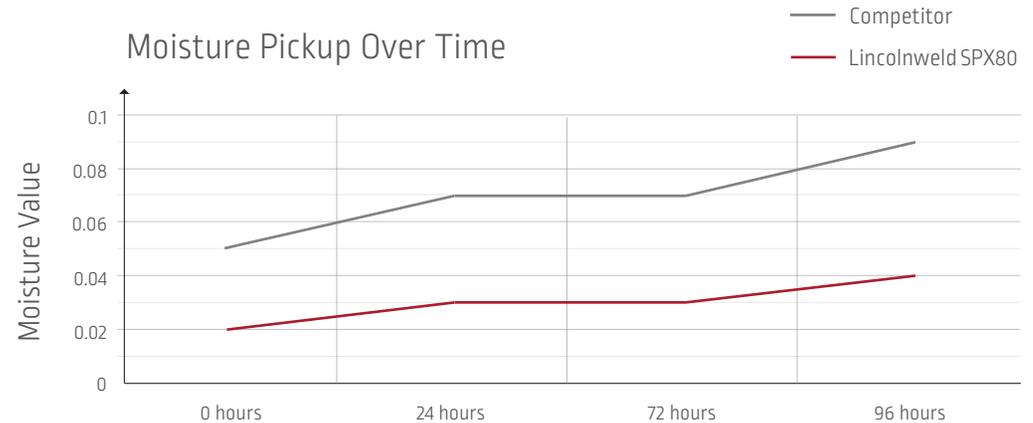
Straight to Coat

Lincolnweld® SPX80™

When pipe-manufacturing is the task at hand, productivity means consistently making prime pipe. Without a single indication, prime pipe simply flows through a mill and onto shipping without additional inspection or repair. The industry-leading SPX80 flux ensures quality and efficiency along the way by enabling fast welding speeds, excellent wetting and ideal bead shape. With most welding fluxes, pipes sit for hours or even days to properly out-gas prior to coating. But with SPX80, your pipe is ready to go "straight to coat," eliminating WIP and more efficiently moving pipe out of your facility.

While productivity is critical, quality and appearance are also high priorities with pipe welding. SPX80 flux ensures a combination of consistent mechanical properties and a smooth bead appearance.

Producing pipe with SPX80 ensures consistent and quality welds by delivering low hydrogen out of the bag, which saves the time and money that are often spent on post-weld operations and the rework of flawed output. Likewise, the resistance to moisture pickup maintains quality by ensuring durable, crack-resistant welds.

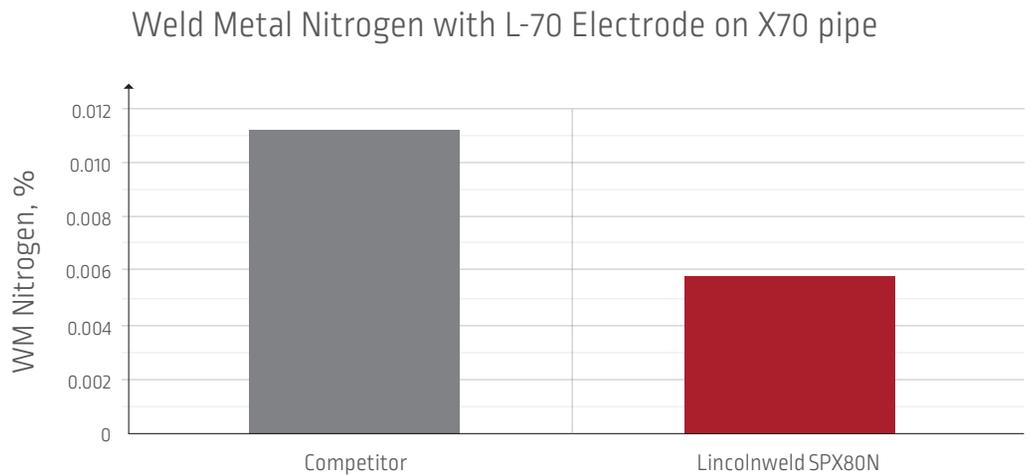
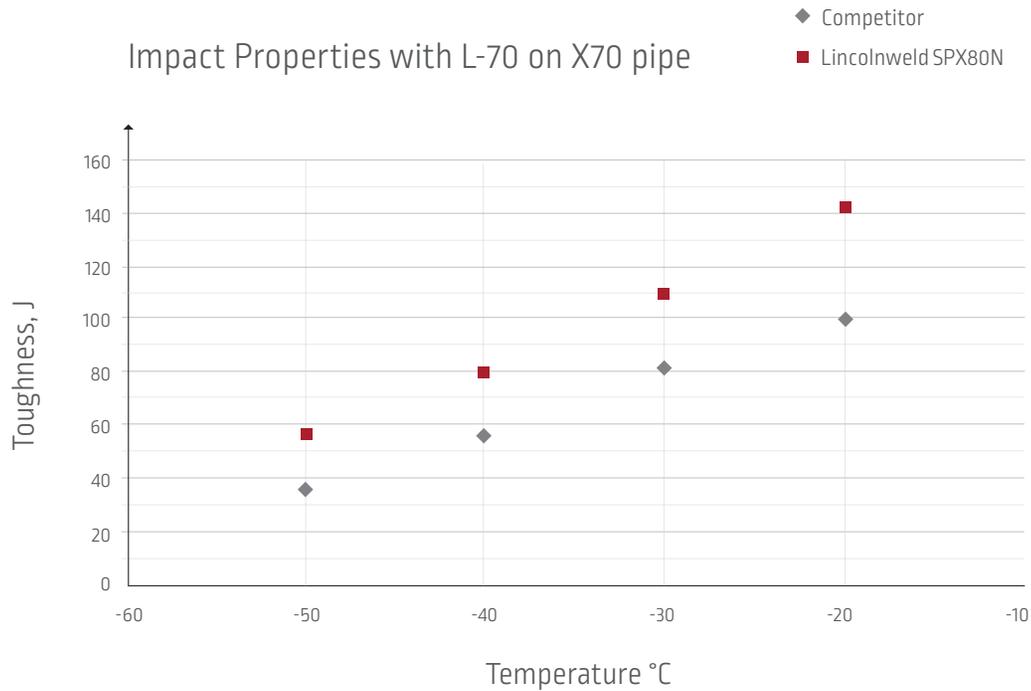


These pictures show the diffusion of hydrogen from weld samples when welded with competitive flux and Lincolnweld SPX80.



Competitor

Lincolnweld SPX80



Maximize Productivity And Quality, Minimize Obstacles

Lincolnweld® SPX80N™

If you're looking for faster, tougher welds with additional protection, SPX80 is the flux of choice. SPX80N delivers increased shielding of the weld pool from atmospheric contamination, and still provides the same "straight-to-coat" finish found in SPX80. In addition SPX80N is designed for fast welding speeds, excellent wetting and optimal bead appearance. Best of all, it's backed by Lincoln Electric's ongoing commitment to customer service.

Lincoln Electric will go the extra mile to ensure your success in pipe welding. We'll send a specialist to your site to assist you in developing proper procedures and definitive solutions for all of your needs. We'll communicate with you about changes in product chemistry, packaging, grain size and other key factors. And we'll work with you to develop optimal delivery schedules. It's all part of an unparalleled commitment to customer service that's been a hallmark of the Lincoln Electric experience for decades.

PACKAGING

	50 lb (22.7 kg) Plastic Bag	2600 lb (1179 kg) Bulk Bag
Lincolnweld SPX80	ED032960	ED033319
Lincolnweld SPX80N	ED036246	ED036247

MECHANICAL PROPERTIES FLUX/WIRE COMBINATION

Two-Run	Yield Strength ⁽²⁾ MPa (ksi)	Tensile Strength MPa (ksi)	Elongation (%)	Charpy V-Notch		AWS Classification (A5.17/A5.23)
				J (ft-lbf)	@°C (°F)	
Lincolnweld SPX80/Lincolnweld LA-81	550 (80)	640 (93)	28	40 (29)	-40 (-40)	F9TA4-EA2TiB
Lincolnweld SPX80N/ Lincolnweld L-61	510 (74)	620 (90)	30	57 (42)	-18 (0)	F8TA0G-EM12K
Lincolnweld SPX80N/ Lincolnweld L-70	570 (83)	660 (95)	26	76 (56)	-40 (-40)	F9TA4G-EA1
Lincolnweld SPX80N/ Lincolnweld LA-81	600 (87)	680 (98)	27	148 (109)	-51 (-60)	F9TA6G-EATiB
Lincolnweld SPX80N/ Lincolnweld LA-90	600 (87)	710(103)	26	99 (73)	-51 (-60)	F9TA6G-EA3K

FLUX COMPOSITION⁽¹⁾

	%SiO ₂	%MnO	%MgO	%CaF ₂	%NaO	%Al ₂ O ₃	%CaO	%ZrO ₂	%FeO	%TiO ₂
Lincolnweld SPX80	21	9	21	14	1	23	3	2	1	1
Lincolnweld SPX80N	19	8	19	8	2	30	7	2	3	1

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

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 business of 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.