

# MUREX® 309LSI

Stainless ▪ AWS ER309Si, ER309LSi

## KEY FEATURES

- Similar in composition to 309L with higher silicon content to increase puddle fluidity and improve the bead appearance
- The higher silicon content may allow for increased travel speeds
- Q2 Lot® - Certificate showing actual wire composition and calculated ferrite number (FN) available online
- Controlled ferrite content for maximum corrosion resistance
- Excellent contour of the weld minimizes the need for grinding
- Can be used to clad mild steel

## WELDING POSITIONS

All

## CONFORMANCES

<b>AWS A5.9/A5.9M:</b>	ER309Si, ER309LSi
<b>ASME SFA-5.9:</b>	ER309Si, ER309LSi
<b>ABS:</b>	ER309Si, ER309LSi
<b>CWB/CSA W48-06:</b>	ER309LSi

## TYPICAL APPLICATIONS

- Designed for joining stainless steel to mild or low alloy steel

## SHIELDING GAS

Short Circuiting Transfer:

90% Helium / 7-1/2% Argon / 2-1/2% CO<sub>2</sub>

Axial Spray Transfer:

98% Argon/ 2% Oxygen

## DIAMETERS / PACKAGING

Diameter in (mm)	33 lb (14.9 kg) Steel Spool	500 lb (227 kg) Accu-Trak® Drum
0.035 (0.9)	ED035606	ED035609
0.045 (1.1)	ED035608	ED035610

## MECHANICAL PROPERTIES<sup>(1)</sup>

	Yield Strength <sup>(2)</sup> MPa (ksi)	Tensile Strength MPa (ksi)	Elongation %	Ferrite Number
Typical Results <sup>(3)</sup> - As-Welded	427 (62)	586 (85)	39	10

## WIRE COMPOSITION<sup>(1)</sup> – As Required per AWS A5.9/A5.9M

	%C <sup>(4)</sup>	%Cr	%Ni	%Mo	%Mn
Requirements - AWS ER309LSi	0.03 max	23.0-25.0	12.0- 14.0	0.75 max	1.0-2.5
Typical Results <sup>(3)</sup>	0.02	23.4	13.7	0.30	2.1
	%Si	%P	%S	%N <sup>(5)</sup>	%Cu
Requirements - AWS ER309LSi	0.65-1.00	0.03 max	0.03 max	Not Specified	0.75 max
Typical Results <sup>(3)</sup>	0.77	0.02	<0.01	0.09	0.09

<sup>(1)</sup>Typical wire composition. <sup>(2)</sup>Measured with 0.2% offset <sup>(3)</sup>See test results disclaimer <sup>(4)</sup>AWS Requirement for ER309Si is 0.12% max. carbon. <sup>(5)</sup>Included in 0.50% max. for other elements not specified.

IMPORTANT: SPECIAL VENTILATION AND/OR EXHAUST REQUIRED

Fumes from the normal use of some welding products can contain significant quantities of components - such as chromium and manganese - which can lower the 5.0 mg/m<sup>3</sup> maximum exposure guideline for general welding fume.

BEFORE USE, READ AND UNDERSTAND THE SAFETY DATA SHEET (SDS) FOR THIS PRODUCT AND SPECIFIC INFORMATION PRINTED ON THE PRODUCT CONTAINER.

*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.