

MUREX® 316LSI

Stainless ▪ AWS ER316Si, ER316LSi

KEY FEATURES

- Similar in composition to 316L with higher silicon content to increase puddle fluidity and improve the bead appearance
- The higher silicon content may allow for increased travel speeds
- Molybdenum grade for increased corrosion resistance
- Q2 Lot® - Certificate showing actual wire composition and calculated ferrite number (FN) available online

WELDING POSITIONS

All

CONFORMANCES

AWS A5.9/A5.9M:	ER316Si, ER316LSi
ASME SFA-5.9:	ER316Si, ER316LSi
ABS:	ER316Si, ER316LSi
CWB/CSA W48-06:	ER316LSi

TYPICAL APPLICATIONS

- Molybdenum bearing austenitic stainless steels
- Type 316 and 316L

SHIELDING GAS

Short Circuiting Transfer:

90% He / 7.5% Argon / 2.5% CO₂

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
0.030 (0.8)	ED036499	
0.035 (0.9)	ED035611	ED035614
0.045 (1.1)	ED035613	ED035615

MECHANICAL PROPERTIES⁽¹⁾

	Yield Strength ⁽²⁾ MPa (ksi)	Tensile Strength MPa (ksi)	Elongation %	Ferrite Number
Typical Results ⁽³⁾ - As-Welded	441 (64)	600 (87)	37	8

WIRE COMPOSITION⁽¹⁾ – As Required per AWS A5.9/A5.9M

	%C ⁽⁴⁾	%Cr	%Ni	%Mo	%Mn
Requirements - AWS ER316LSi	0.03 max	18.0-20.0	11.0-14.0	2.0-3.0	1.0-2.5
Typical Results ⁽³⁾	0.02	18.3	11.3	2.2	1.6
	%Si	%P	%S	%N ⁽⁵⁾	%Cu
Requirements - AWS ER316LSi	0.65-1.00	0.03 max	0.03 max	Not Specified	0.75 max
Typical Results ⁽³⁾	0.82	0.02	0.02	0.07	0.10

⁽¹⁾Typical wire composition. ⁽²⁾Measured with 0.2% offset. ⁽³⁾See test results disclaimer. ⁽⁴⁾AWS Requirement for ER316Si is 0.08% max. carbon. ⁽⁵⁾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/m³ 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

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.