

# BLUE MAX® MIG 308LSi

Stainless ▪ AWS ER308Si, ER308LSi

## KEY FEATURES

- High silicon level for increased puddle fluidity and toe wetting
- Proprietary surface lubricant for steady feeding and arc stability
- Versatile electrode designed to weld CrNi austenitic stainless steels
- Q2 Lot® - Certificate showing actual wire composition and calculated ferrite number (FN) available online
- Used to primarily weld equipment made with 304 type stainless steel
- Higher silicon content improves wetting of the weld metal and potentially higher travel speeds compared to standard 308L products

## WELDING POSITIONS

All

## CONFORMANCES

<b>AWS A5.9:</b>	ER308Si, ER308LSi
<b>ASME SFA-A5.9:</b>	ER308Si, ER308LSi
<b>ABS:</b>	ER308Si, ER308LSi
<b>CWB/CSA W48-06:</b>	ER308LSi
<b>EN ISO 14343-B:</b>	SS308LSi
<b>ISO 14343:2009:</b>	(19 9 L Si)

## TYPICAL APPLICATIONS

- 304 and 304L stainless steels
- Common austenitic stainless steels referred to as "18-8" steels
- ASTM A743 or A744 Types CF-8 and CF-3
- Exceptionally performs at high wire feed speeds

## SHIELDING GAS

Short Circuiting Transfer:

90% He/ 7.5% Ar/ 2.5% O<sub>2</sub>

Axial Spray Transfer:

98% Argon / Balance Oxygen

## DIAMETERS / PACKAGING

Diameter in (mm)	25 lb (11.3 kg) Plastic Spool	250 lb (113 kg) Accu-Trak® Drum	500 lb (227 kg) Speed Feed® Reel	1000 lb (454 kg) Precise-Trak® Reel
0.030 (0.8)	ED023961			
0.035 (0.9)	ED019292	ED035060		
0.045 (1.1)	ED019293	ED035063		ED032834
1/16 (1.6)	ED019294		ED035066	

## MECHANICAL PROPERTIES<sup>(1)</sup> – As Required per AWS A5.9

	Yield Strength <sup>(2)</sup> MPa (ksi)	Tensile Strength MPa (ksi)	Elongation %	Ferrite Number
Typical Results <sup>(3)</sup> - As-Welded	455 (66)	635 (92)	46	10

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

	%C <sup>(4)</sup>	%Cr	%Ni	%Mo	%Mn
Requirements - AWS ER308LSi	0.03 max	19.5-22.0	9.0-11.0	0.75 max	1.0-2.5
Typical Results <sup>(3)</sup>	0.01	19.9	10.0	0.16	2.1
	%Si	%P	%S	%N <sup>(5)</sup>	%Cu
Requirements - AWS ER308LSi	0.65-1.00	0.03 max	0.03 max	Not Specified	0.75 max
Typical Results <sup>(3)</sup>	0.88	0.02	0.01	0.05	0.17

<sup>(1)</sup>Typical all weld metal. <sup>(2)</sup>Measured with 0.2% offset. <sup>(3)</sup>See test results disclaimer <sup>(4)</sup>AWS Requirements for ER308Si is 0.08% max carbon. <sup>(5)</sup>Included in 0.50% max. for other elements not specified.

## TYPICAL OPERATING PROCEDURES

Diameter, Polarity Shielding Gas	CTWD <sup>(6)</sup> mm (in)	Wire Feed Speed m/min (in/min)	Voltage (Volts)	Approx. Current (Amps)	Deposition Rate kg/hr (lb/hr)	
<b>Short Circuit Transfer</b>						
0.035 in (0.9 mm), DC+ 90% He / 7-1/2% Ar / 2-1/2% CO <sub>2</sub>	13 (1/2)	3.0 (120)	19-20	55	0.9 (2.0)	
	13 (1/2)	4.6 (180)	19-20	85	1.4 (3.0)	
	13 (1/2)	5.8 (230)	20-21	105	1.8 (3.9)	
	13 (1/2)	7.6 (300)	20-21	125	2.3 (5.0)	
	13 (1/2)	8.9 (350)	21-22	140	2.7 (5.9)	
	13 (1/2)	10.2 (400)	22-23	160	3.1 (6.7)	
0.045 in (1.1 mm), DC+ 90% He / 7-1/2% Ar / 2-1/2% CO <sub>2</sub>	13 (1/2)	2.5 (100)	19-20	100	1.1 (2.8)	
	13 (1/2)	3.2 (125)	19-20	120	1.5 (3.5)	
	13 (1/2)	3.8 (150)	21	135	1.7 (4.2)	
	13 (1/2)	4.4 (175)	21	140	2.0 (4.8)	
	13 (1/2)	5.6 (220)	22	170	2.6 (6.1)	
	13 (1/2)	6.4 (250)	22-23	175	2.9 (6.9)	
0.045 in (1.1 mm), DC+ 98% Ar/2% O <sub>2</sub>	13 (1/2)	10.2 (400)	22	180	3.1 (6.7)	
	13 (1/2)	10.8 (425)	23	190	3.3 (7.1)	
	13 (1/2)	11.4 (450)	23	200	3.5 (7.5)	
	13 (1/2)	12.1 (475)	23	210	3.7 (8.0)	
	0.045 in (1.1 mm), DC+ 98% Ar/2% O <sub>2</sub>	13 (1/2)	6.1 (240)	23	195	2.8 (6.6)
		13 (1/2)	6.6 (260)	24	230	3.0 (7.2)
13 (1/2)		7.6 (300)	24	240	3.5 (8.3)	
13 (1/2)		8.3 (325)	25	250	3.8 (9.0)	
13 (1/2)		9.1 (360)	25	260	4.2 (10.0)	
1/16 in (1.6 mm), DC+ 98% Ar/2% O <sub>2</sub>	19 (3/4)	4.4 (175)	25	260	4.3 (9.2)	
	19 (3/4)	5.1 (200)	26	310	4.9 (10.5)	
	19 (3/4)	6.4 (250)	26	330	6.2 (13.1)	
	19 (3/4)	7.0 (275)	27	360	6.8 (14.4)	
	19 (3/4)	7.6 (300)	28	390	7.4 (15.8)	

<sup>(1)</sup>Typical all weld metal. <sup>(2)</sup>Measured with 0.2% offset. <sup>(3)</sup>See test results disclaimer <sup>(4)</sup>AWS Requirements for ER308Si is 0.08% max carbon. <sup>(5)</sup>Included in 0.50% max. for other elements not specified.

<sup>(6)</sup>To estimate ESO, subtract 1/8 in (3 mm) from CTWD.

## 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

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