

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

AWS A5.9/A5.9M: 2012	ER308Si, ER308LSi
ASME SFA-A5.9:	ER308Si, ER308LSi
ABS:	ER308Si, ER308LSi
CWB/CSA W48-06:	ER308LSi
EN ISO 14343-B:	SS308LSi
ISO 14343:2009:	(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

SHIELDING GAS

Short Circuiting Transfer:
90% Helium / 7-1/2% Argon / 2-1/2% CO₂

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		
1/16 (1.6)	ED019294		ED035066	ED032834

MECHANICAL PROPERTIES⁽¹⁾ – As Required per AWS A5.9/A5.9M: 2006

	Yield Strength ⁽²⁾ MPa (ksi)	Tensile Strength MPa (ksi)	Elongation %	Ferrite Number
Requirements – AWS ER308Si, ER308LSi	Not Specified			
Test Results⁽³⁾ – As-Welded	455 (66)	635 (92)	46	13

WIRE COMPOSITION⁽¹⁾ – As Required per AWS A5.9/A5.9M: 2012

	%C ⁽³⁾	%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
Test Results⁽³⁾	0.01	19.9	10.0	0.16	2.1
	%Si	%P	%S	%N ⁽⁴⁾	%Cu
Requirements – AWS ER308LSi	0.65-1.00	0.03 max	0.03 max	Not Specified	0.75 max
Test Results⁽³⁾	0.88	0.02	0.01	0.05	0.17

⁽¹⁾Typical wire chemistry. ⁽²⁾See test results disclaimer ⁽³⁾AWS Requirements for ER308Si is 0.08% max carbon

TYPICAL OPERATING PROCEDURES

Diameter, Polarity Shielding Gas	CTWD ⁽⁵⁾ mm (in)	Wire Feed Speed m/min (in/min)	Voltage (Volts)	Approx. Current (Amps)	Deposition Rate kg/hr (lb/hr)	
Short Circuit Transfer						
0.035 in (0.9 mm), DC+ 90% He / 7-1/2% Ar / 2-1/2% CO ₂	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 ₂	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 ₂	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 ₂	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)	
1/16 in (1.6 mm), DC+ 98% Ar/2% O ₂	13 (1/2)	9.1 (360)	25	260	4.2 (10.0)	
	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)		

⁽¹⁾Typical wire chemistry. ⁽²⁾See test results disclaimer ⁽³⁾AWS Requirements for ER308Si is 0.08% max carbon

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 MATERIAL SAFETY DATA SHEET (MSDS) 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.

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