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:	ER308Si, ER308LSi
ASME SFA-A5.9:	ER308Si, ER308LSi
ABS:	ER308LSi
CWB/CSA W48-06:	SS308LSi
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
- Performs exceptionally at high wire feed speeds

SHIELDING GAS

Short Circuiting Transfer:
90% He/ 7.5% Ar/ 2.5% O_2

Axial Spray Transfer:
98% Argon / Balance Oxygen

DIAMETERS / PACKAGING

Diameter in (mm)	25 lb (11.3 kg) Plastic Spool	33 lb (15 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)	ED02396[6]	ED037252			
0.035 (0.9)	ED019292[6]	ED037250	ED035060		ED032834
0.045 (1.1)	ED019293[6]	ED037251	ED035063		
1/16 (1.6)	ED019294			ED035066	

MECHANICAL PROPERTIES[1] – *As Required per AWS A5.9*

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

WIRE COMPOSITION[1] – *As Required per AWS A5.9*

	%C[4]	%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[3]	0.01	19.9	10.0	0.16	2.1
	%Si	**%P**	**%S**	**%N[5]**	**%Cu**
Requirements - AWS ER308LSi	0.65-1.00	0.03 max	0.03 max	Not Specified	0.75 max
Typical Results[3]	0.88	0.02	0.01	0.05	0.17

[1]Typical all weld metal. [2]Measured with 0.2% offset. [3]See test results disclaimer [4] AWS Requirements for ER308Si is 0.08% max carbon. [5]Included in 0.50% max. for other elements not specified.
[6]This 25 lb (11.3 kg) package will be discontinued as stock is depleted and replaced with the 33 lb (15 kg) package shown. [7]To estimate ESO, subtract 1/8 in (3 mm) from CTWD.

TYPICAL OPERATING PROCEDURES

Diameter, Polarity Shielding Gas	CTWD[7] 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)
	13 (1/2)	7.0 (275)	22-23	185	3.2 (7.6)
Axial Spray Transfer					
0.035 in (0.9 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)
	13 (1/2)	9.1 (360)	25	260	4.2 (10.0)
1/16 in (1.6 mm), DC+ 98% Ar/2% O_2	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 all weld metal. [2]Measured with 0.2% offset. [3]See test results disclaimer [4] AWS Requirements for ER308Si is 0.08% max carbon. [5]Included in 0.50% max. for other elements not specified.
[7]To estimate ESO, subtract 1/8 in (3 mm) from CTWD.

Safety Data Sheets (SDS) and Certificates of Conformance are available on our website at www.lincolnelectric.com

FUMES AND GASES can be hazardous to your health.

- Fumes from the normal use of this product contain significant quantities of potentially hazardous compounds. See consumable product label/insert.
- Keep your head out of the fumes.
- Use enough ventilation and local exhaust to keep fumes and gases from your breathing zone and the general area.
- An approved respirator should be used unless exposure assessments are below applicable exposure limits.

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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