Excalibur® 308/308L-15, -17

308/308L-15: *AWS E308-15/E308L-15;* ***308/308L-17:*** *AWS E308-17/E308L-17*

KEY FEATURES

- Q2 Lot® - Certificate showing actual deposit chemistry and calculated ferrite number (FN) available online
- Designed with low carbon levels to help eliminate carbide precipitation in high temperature service
- Versatile electrode designed to weld several types of austenitic steels

308/308L-15

- Flux coating is fast freezing for vertical down welding and slag is self-peeling for easy removal
- Smooth bead appearance with evenly spaced ripples and flat face

308/308L-17

- Flux coating provides smooth arc transfer in the flat and horizontal positions and slag is self-peeling for easy removal

APPLICATIONS

- 304 and 304L stainless steels
- Common austenitic stainless steels referred to as “18-8” steels

WELDING POSITIONS

308/308L-15	All
308/308L-17	Flat and Horizontal

CONFORMANCES

AWS A5.4/A5.4M: 2006:	
308/308L-15	E308-15, E308L-15
308/308L-17	E308-17, E308L-17
ASME SFA-A5.4:	Same as AWS
ABS:	
308/308L-15	E308-15, E308L-15
CWB/CSA W48-06:	
308/308L-17	E308-17, E308L-17

DIAMETERS / PACKAGING

Diameter in (mm)	Length in (mm)	1 lb (0.5 kg) Tube 6 lb (2.7 kg) Carton 308/308L-17	
1/8 (3.2)	14 (350)		ED033093

Diameter in (mm)	Length in (mm)	8 lb (3.6 kg) Easy Open Can 308/308L-15	308/308L-17
3/32 (2.4)	12 (300)	ED033087	ED033089
1/8 (3.2)	12 (300)	ED033088	

Diameter in (mm)	Length in (mm)	10 lb (4.5 kg) Easy Open Can 308/308L-17
1/8 (3.2)	14 (350)	ED033090
5/32 (4.0)	14 (350)	ED033091
3/16 (4.8)	14 (350)	ED033092

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THE WELDING EXPERTS®

MECHANICAL PROPERTIES[1] – *As Required per AWS A5.4/A5.4M: 2006*

	Yield Strength[2] MPa (ksi)	Tensile Strength MPa (ksi)	Elongation %	Ferrite Number
Requirements				
AWS E308-15, -17	Not Specified	550 (80) min.	35 min.	Not Specified
AWS E308L-15, -17		520 (75) min.		
Typical Performance[3]				
As-Welded				
308/308L-15	455 (66)	625 (91)	44	8 - 10
308/308L-17	425 - 470 (62 - 68)	585 - 635 (85 - 92)	42 - 50	6 - 11

DEPOSIT COMPOSITION[1] – *As Required per AWS A5.4/A5.4M: 2006*

	%C[4]	%Cr	%Ni	%Mo	%Mn
Requirements					
AWS E308L-15, -17	0.04 max.	18.0 - 21.0	9.0 - 11.0	0.75 max.	0.5 - 2.5
Typical Performance[3]					
308/308L-15	0.03	19.9	9.9 - 10.2	0.05 - 0.09	0.7 - 0.8
308/308L-17	0.03	20.0 - 20.5	9.7 - 9.9	0.20	0.6 - 0.7

	%Si	%P	%S	%Cu
Requirements				
AWS E308L-15, -17	1.00 max.	0.04 max.	0.03 max.	0.75 max.
Typical Performance[3]				
308/308L-15	0.69 - 0.73	0.02	0.01	0.08
308/308L-17	0.56 - 0.77	0.03	0.02	0.22

[1] Typical all weld metal. [2] Measured with 0.2% offset. [3] See test results disclaimer below. [4] AWS Requirement for E308-15, -17 is 0.08% max. carbon.

TYPICAL OPERATING PROCEDURES

Polarity	Current (Amps) 3/32 in (2.4 mm)	1/8 in (3.2 mm)	5/32 in (4.0 mm)	3/16 in (4.8 mm)
308/308L-15				
DC+	60 - 70	90 - 100	–	–
308/308L-17				
DC+/AC	40 - 80	75 - 110	95 - 150	130 - 200

NOTE: Preferred polarity is listed first.

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.

LINCOLN® ELECTRIC
THE WELDING EXPERTS®