

CERTIFICATE OF CONFORMANCE



Electrode: **Lincolnweld® L-61®**
 Electrode Size **3/32" (2.4 mm)**
 Flux: **Lincolnweld® 960®**
 Specification: **AWS D1.8:2016**
 Date: **June 01, 2020**

This is to certify that the above listed flux was manufactured to meet the Class F2 requirement of AWS A5.01, and the above listed electrode was manufactured to meet the Class S4 requirement of AWS A5.01, as required by clause 6.3.1.2 of AWS D1.8:2016.

It was manufactured and supplied according to a Quality System Program that meets the requirements of ISO9001 among others as documented on The Lincoln Electric web page (<http://www.lincolnelectric.com/en-us/company/Pages/certifications.aspx>).

Operating Settings	High Heat Input Requirements	Low Heat Input Requirements	High Heat Input Results	Low Heat Input Results
Electrode Lot			16467087	16467087
Flux Lot			15720343	15720343
Base Material			ASTM A572 steel (Grade 50)	ASTM A36 steel
Current Type/Polarity			DC+	DC+
Plate Thickness, mm (in)	(0.75 - 1)	(0.75 - 1)	25 (1.00)	25 (1.00)
Nominal Voltage, V			29.5	28
Wire Feed Speed, cm/min (in/min)			244 (96)	142 (56)
Nominal Current, A			750	500
Average Heat Input, kJ/cm (kJ/in)	Not Specified	Not Specified	2.2 (55.3)	1.2 (30)
Contact Tip to Work Distance, mm (in)			32 (1.25)	25 (1)
Travel Speed, cm/min (in/min)			61 (24)	71 (28)
Pass/Layers			16/8	30/14
Preheat Temperature, °C (°F)	(250 min.)	(120 max.)	120 (250)	25 (75)
Interpass Temperature, °C (°F)	(450 min.)	(250 max.)	230 (450)	120 (250)
Postweld Heat Treatment	As-welded	As-welded	As-welded	As-welded
Weld Position			1G	1G

Mechanical properties of weld deposits

Tensile Strength, MPa (ksi)	(70 min.)	(70 min.)	510 (73)	560 (81)
Yield Strength, 0.2% Offset, MPa (ksi)	(58 min.)	(58 min.)	420 (61)	470 (68)
Elongation %	22 min.	22 min.	32	27
Average Impact Energy	(40 min.)	(40 min.)	149 (110)	101 (74)
Joules @ -18 °C (ft-lbs @ 0 °F)			147,147,152 (108,108,112)	95,97,111 (70,72,82)

- This document meets the requirements of AWS A5.01M/A5.01 Schedule F. When a specific lot number is referenced it also meets the requirements of EN10204, type 2.2. It does not meet the requirements of type 3.1.
- The Charpy V-notch impact values reported at -18 °C (0 °F) are required when the Lowest Anticipated Service Temperature (LAST) is -29 °C (-20 °F).
- Strength values in SI units are reported to the nearest 10 MPa converted from actual data. Preheat and interpass temperature values in SI units are reported to the nearest 5 degrees.

June 01, 2020

Daniel Gaul, Certification Supervisor

Date

June 01, 2020

Jon Ogborn, Manager, Consumable Compliance

Date