The Lincoln Electric Company
22801 St. Clair Avenue
Cleveland, Ohio 44117-1199

CERTIFICATE OF CONFORMANCE

LINCOLN ELECTRIC
THE WELDING EXPERTS®

Product: **SuperArc® L-50®**

Classification: **AWS D1.5 ER70S-3**

Also meets the requirements of **AWS D1.1 ER70S-3**

Date **April 11, 2023**

This is to certify that the product named above is of the same classification(s) and design as the material used for the tests reported herein. The material was tested according to the specification(s) indicated and met all requirements. 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	ER70S-3 Requirements	RESULTS
Electrode Size		.045" (1.1 mm)
Current Type/Polarity	DC+	DC+
Shielding Gas	Not Specified	90% Ar, 10% CO2
Wire Feed Speed, cm/min (in/min)	Not Specified	1092 (430)
Nominal Voltage, V	Not Specified	30
Nominal Current, A	Not Specified	300
Average Heat Input, kJ/mm (kJ/in)		1.5 (36.9)
Travel Speed, cm/min (in/min)	Not Specified	37 (14.6)
Contact Tip to Work Distance, mm (in	Not Specified	19 (3/4)
Pass/Layers		15/6
Preheat Temperature, °C (°F)	(60 min.)	20 (72)
Interpass Temperature, °C (°F)	(325 max.)	135 (275)
Postweld Heat Treatment	As-welded	As-welded

Mechanical properties of weld deposits

Tensile Strength, MPa (ksi)	(70 min.)	550 (80)
Yield Strength, 0.2% Offset, MPa (ksi)	(58 min.)	450 (65)
Elongation %	22 min.	24
Average Impact Energy Joules @ -18 °C (ft-lbs @ 0 °F)	(20 min.)	143 (106) 138,142,150 (102,105,110)

Chemical composition of weld deposits (weight %)

C	Info. Only	0.08
Mn	Info. Only	0.99
Si	Info. Only	0.47
P	Info. Only	0.010
S	Info. Only	0.007
Ni	Info. Only	0.02
Cr	Info. Only	0.04
Mo	Info. Only	<0.00
V	Info. Only	<0.003
Zr	Info. Only	<0.001
Ti	Info. Only	<0.001
Al	Info. Only	0.00
Cu	Info. Only	0.16

Electrode composition (weight %)	ER70S-3 Requirements	Electrode Results
C	0.06 - 0.15	0.08
Mn	0.90 - 1.40	1.17
Si	0.45 - 0.75	0.57
P	0.025 max.	0.007
S	0.035 max.	0.009
Ni	0.15 max.	0.03
Cr	0.15 max.	0.03
Mo	0.15 max.	<0.00
V	0.03 max.	<0.00
Cu (Total)	0.50 max.	0.17

1. This document meets the requirements of AWS A5.01M/A5.01 Schedule G. 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.
2. Radiographic Inspection: Met requirements.
3. 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.

Cert. No. 010500-D1.5-0.045 in-New-041

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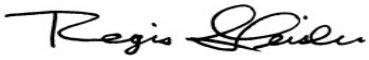
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Date **April 11, 2023**



April 11, 2023

Daniel Gaul, Certification Supervisor — Date



April 11, 2023

Regis Geisler, Manager, Consumable Compliance — Date