

CERTIFICATE OF CONFORMANCE

Product: **SuperArc® LA-75**

Classification: **AWS D1.5 ER80S-Ni1**

Classification: **NACE**

Also meets the requirements of **AWS D1.1 ER80S-Ni1**

Date **July 02, 2020**

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	ER80S-Ni1 Requirements		RESULTS
Electrode Size			.045" (1.1 mm)
Current Type/Polarity	DC+	DC+	DC+
Shielding Gas	Not Specified	Not Specified	92% Ar, 8% CO2
Nominal Voltage, V	Not Specified	Not Specified	30
Wire Feed Speed, cm/min (in/min)	Not Specified	Not Specified	1092 (430)
Nominal Current, A	Not Specified	Not Specified	315
Average Heat Input, kJ/cm (kJ/in)			1.5 (38.8)
Travel Speed, cm/min (in/min)	Not Specified	Not Specified	37 (14.6)
Contact Tip to Work Distance, mm (in)	Not Specified	Not Specified	19 (3/4)
Pass/Layers			16/6
Preheat Temperature, °C (°F)	(275 - 325)	(275 - 325)	135 (275)
Interpass Temperature, °C (°F)	(275 - 325)	(275 - 325)	135 (275)
Postweld Heat Treatment	As-welded	As-welded	As-welded

Mechanical properties of weld deposits

Tensile Strength, MPa (ksi)	(80 min.)	(80 min.)	590 (86)
Yield Strength, 0.2% Offset, MPa (ksi)	(68 min.)	(68 min.)	500 (72)
Elongation %	24 min.	24 min.	28
Average Impact Energy Joules @ -46 °C (ft-lbs @ -50 °F)	(20 min.)	(20 min.)	121 (89) 108,117,139 (79,86,102)

Chemical composition of weld deposits (weight %)

C	Info. Only	Info. Only	0.09
Mn	Info. Only	Info. Only	0.79
Si	Info. Only	Info. Only	0.50
S	Info. Only	Info. Only	0.008
P	Info. Only	Info. Only	0.006
Ni	Info. Only	Info. Only	1.03
Cr	Info. Only	Info. Only	0.15
Mo	Info. Only	Info. Only	0.03
V	Info. Only	Info. Only	<0.003
Zr	Info. Only	Info. Only	<0.001
Ti	Info. Only	Info. Only	0.00
Al	Info. Only	Info. Only	<0.001
Cu	Info. Only	Info. Only	0.20

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. The strength and elongation properties reported here were obtained from tensile specimens artificially aged at 105°C (220°F) for 48 hours.
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.



July 02, 2020

Daniel Gaul, Certification Supervisor

Date



July 02, 2020

Rich Bollas, Certification Supervisor

Date